HP ALM Web Client

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User Guide

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Chapter 1: The ALM Web Client Overview

The ALM Web Client offers an alternative user interface for managing the lifecycle of your application, and is part of HP's ongoing commitment to providing innovative products and solutions. ALM Web Client is user-friendly and easy to navigate, and together with its new features and functionality, shortens work processes and provides an improved user experience.

Note: Currently, the modules supported by the ALM Web Client are Requirements and Defects.

Why use the ALM Web Client?

Here are some ALM Web Client benefits.

Pure web client

When using the ALM Web Client, no client components are downloaded to your machine. The lack of a client footprint ensures that:

- You are always working with the most up-to-date client modules
- No residual files clutter up your machine
- Administrator privileges are no longer necessary when using the client
- The ALM Web Client loads more quickly, as expected from a pure web application

Cross-platform and cross-browser

The ALM Web Client modules are not browser-dependent and can be used on various operating systems, such as Unix, Linux, and Mac. See the *ALM Readme* for supported browsers and operating systems.

Work side-by-side

You can keep both the ALM Web Client and the ALM Desktop Client open simultaneously. Changes are visible in both clients after a refresh, data are

retained in the same database, and full locking capabilities maintain data integrity.

More functionality

The ALM Web Client has features not available in the ALM Desktop Client, such as:

- Author mode. A document-centric viewing mode that enables you to see a list
 of requirements in a single document view and allows for quick editing of
 descriptions. This helps you to have a better overall perspective of the
 requirements.
- Category Views. A dynamic hierarchical structure based on virtual folders allows for flexibility in manipulating the view. Views can be updated on-the-fly by selecting new category fields. This flexibility lets you determine the way in which your ALM project data is organized.

Who should use this client?

The ALM Web Client currently supports the Requirements and Defects modules, so the most suitable candidates for using this client are those who use ALM to capture, update, or view data related to requirements or defects. ALM users who work mainly with data analysis should use the ALM Desktop Client until full analysis capabilities are available in the ALM Web Client.

The following are some of the roles that are suited to working with the ALM Web Client:

Business analysts, functional architects, project managers, and product owners	These users can work exclusively in the ALM Web Client to create, update, and view requirements. Users that rely on reports and dashboards to analyze requirements, such as project managers, can work with the ALM Desktop Client as it currently supports a more comprehensive suite of analysis tools. Also, those working extensively with Business Process Modeling should continue to use the ALM Desktop Client.
Developers	Developers can use the ALM Web Client for viewing and updating requirements and defects assigned to their team, or for creating new requirements or defects.

Exploratory testers	These users are less likely to associate defects to tests. Therefore, they can work exclusively in the ALM Web Client to create defects.
	Testers that associate defects to tests can work with the ALM Desktop Client as it currently supports both the Test Plan and Test Lab modules.
Administrators	Administrators should work in both the ALM Desktop Client and the ALM Web Client to provide access to the ALM Web Client and to customize the user experience.

Note: The roles mentioned above should be considered a partial list of suggested users. There may be other job titles in your organization, with similar responsibilities, who may also benefit from using the ALM Web Client.

See also

- HP ALM What's New
- Administrators: "Managing projects" on page 141
- Administrators: "Customizing the ALM Web Client" on page 75

User Guide

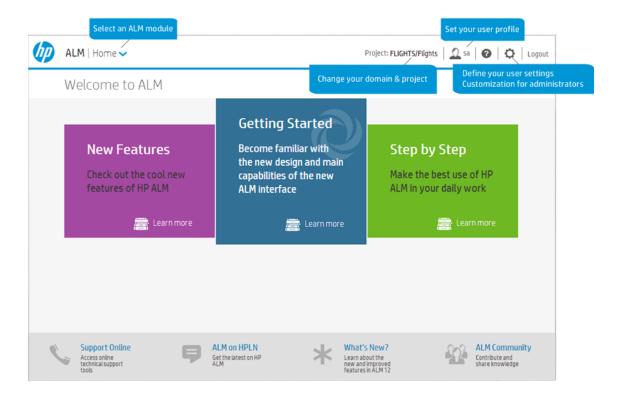
Chapter 2: Using the ALM Web Client

The first time that you log in to a project, the main window opens and displays the Home page. From then on, the view in which you last worked during your previous session will be displayed after logging in to the project.

In the top banner (masthead) you can see the current domain and project, as well as your user name. The masthead is visible in all ALM modules and views.

You can perform the following actions from the masthead:

- Navigate between ALM Web Client modules
- Switch to a different domain and project
- · Configure your user profile
- Access the ALM Web Client online help
- Log out of your project
- Customize your user settings
- Administrators can customize the ALM Web Client



Here is additional information for some of these tasks.

Selecting an ALM Module

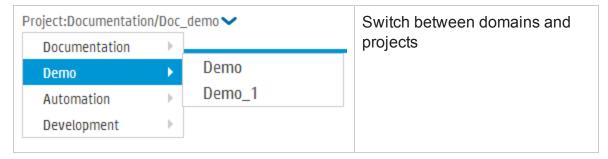


How can this help me?

You have quick and easy access to your work environments.

Note: Only the modules to which you have been given access permissions by your site administrator are listed.

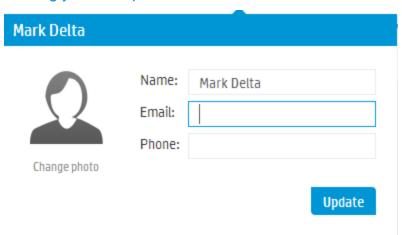
Changing your domain and project



How can this help me?

You can quickly switch to other projects that you are working on from the main window in any module.

Setting your user profile



How can this help me?

Personalize your user profile by adding your contact details and uploading a photo.

Note: When changing your photo, it may take up to 24 hours for your updated photo to be visible to all project users.

Defining your user settings & customization

User settings

You can define user settings to the ALM Web Clientworks how you want it to work.

Auto-save

You can enable the **Auto Save** setting so that ALM Web Client saves your changes as you navigate from one entity to another, without being prompted by a dialog box to save your changes.

How can this help me?

You get to choose the way that you prefer to work when using the ALM Web Client.

Enable Auto Save by selecting the Apply Auto Save checkbox and clicking Save.

Note: Auto Save does not save if you log out of the ALM Web Client before navigating to a different entity. The lock on the entity, however, is released so as not to block other users from modifying the entity.

Manage preset values

You can determine the values that the ALM Web Client should use when creating a new entity, by defining preset values for fields and saving them in a template. You can create multiple preset value templates for an entity, and set a particular template to be the Default template. When you create a new entity, the values defined in the Default template are automatically filled in, or you can select a different template that should be loaded for one-off use.

How can this help me?

You can set values for multiple fields in one step. This saves time and effort when creating new entities. Preset value templates are useful in cases where:

- You often use the same values for particular fields when creating an entity
- You add defects for different products, each with its own set of values. Defects
 for *Product A* have one set of values while defects for *Product B* have a different
 set of values.
- You use several types of requirements, each with a different set of fields and you
 would like to set different initial values for the fields depending on the
 requirement type.

For example

Let's say you are creating requirements for the Mercury Tours 10.5 release of the Flight Reservation Desktop Application. You would like all your requirements to have a value of *Mercury Flight Reservation Desktop Application* for the **Product** field and a value of *Release 10.5* for the **Target Release** field. In addition, you would like to set the following values automatically when creating **Business** and **Functional** requirements:

For Business requirements: Requirement Type: Business

Reviewer: kelly_alm Reviewed: Not Reviewed

For Functional requirements: Requirement Type: Functional

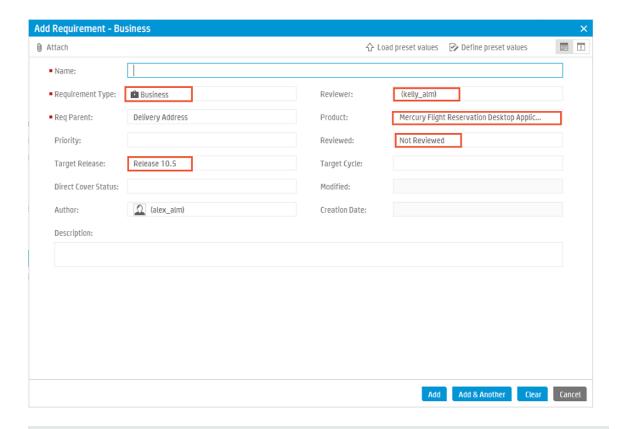
Reviewer: james_alm Reviewed: Not Reviewed Dev Owner: alex_alm

You can define a preset value template for the each requirement type. Once you do this, the next time you add a requirement you can select the template that should



be loaded for that requirement by clicking the drop-down arrow functional to the Add requirement button .

The values for the fields defined in template are automatically completed, so if you loaded the Business template, the following values would automatically be filled in:



Note: As ALM is highly customizable, this example may use customized fields that are not available in your organization.

Managing preset value templates

Note: Before you can set a template as the default, you need to first have defined a preset value template. You do this while adding a new entity. For more details, see "Defining requirements" on page 44 and "Defining defects" on page 67.

- 1. In the masthead, select O and then User Settings.
- 2. Select Manage Preset Values to see a list of available templates.
- To set a new default template, select the template name from the list and click Set as default. If no template is selected, the System default is used. The System default has no predefined values for fields.
- 4. To delete a template, click × next to the template name.

Customization

The administrator has control over the information displayed in the ALM Web Client.

For details: "Customizing the ALM Web Client" on page 75



How can this help me as the end user?

Work with your administrator to make sure the data you need is available to you. The administrator can:

- Set up new icons for your requirement types
- Customize forms for easier viewing and editing of entities
- Create business rules to ease your workflow
- How can this help me as the administrator?

Work with your end users to make sure ALM Web Client is meeting their needs:

- By creating forms, you can make sure end users can only view and access information that is relevant to them
- Using business rules, you can make sure the data entered for each entity has "in context" integrity

Note: The ALM Web and Desktop Clients have been designed to work together as seamlessly as possible. Certain limitations or differences may exist between their functionality and their interoperability.

See also

- "Displaying what you need" on page 19
- "Common actions" on page 23
- "Working with requirements by job function" on page 33
- "Working with defects by job function" on page 63

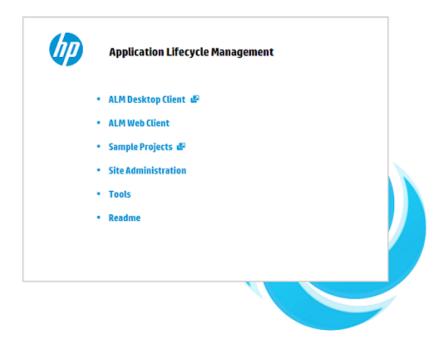
Starting the ALM Web Client

Let's get started.

- 1. Administrators: Check the prerequisites listed in the HP ALM Readme.
- Administrators: Set up access to ALM projects in the ALM Desktop Client. For details, see "Managing projects" on page 141.
- Open your browser and type your ALM URL http://<ALM server name/IP address>[<:port number>]/qcbin.

Contact your administrator if you do not have the URL.

The HP Application Lifecycle Management Options window opens.



- 4. Click ALM Web Client.
- 5. Select your domain and project.

Now that you have started the **ALM Web Client**, choose the module to work in from the masthead.

Tip: The ALM Web Client lists only the modules to which you have access,

based on user group permissions set in Site Administration using the ALM Desktop Client.

See also

- "Managing projects" on page 141 for working in the ALM Desktop Client
- "Managing projects" on page 141 for enabling the ALM Web Client using Site Administration

Displaying what you need

There are many ways to set up how information is displayed in ALM. Set up your display according to your own preference and then save it as a workspace to be reloaded and used in the future.

To watch a movie on how to display what you need, refer to this section in the ALM Web Client Online Help.

- Administrators can determine what end users see by:
- "Managing projects" on page 141
- "Customizing the ALM Web Client" on page 75

Defining the view

From any module, click **Define view** and a panel opens allowing you to define how the data is displayed.

In the Requirements module, you can toggle between a hierarchy, a hierarchy with children, or a flat type of view. For more details on these views, see Getting started with requirements - Defining the view. Defects by nature have no hierarchical structure and are only displayed flat.

Defining category fields

Categories let you separate your data into groups according to specified fields and to define a hierarchical order for displaying the information. This view makes it easier to navigate through large sets of data.

- 1. Click Add category field.
- 2. Select a field from the drop-down list.
- 3. Continue adding fields as necessary. You can add up to four category fields.

Requirements module: When Hierarchy view or Hierarchy with children view is selected, there may be items in the view that don't meet the category conditions. These are displayed to preserve the hierarchical structure and give you a better overall perspective by displaying the parent-child path to the matching requirements, and in the Hierarchy with children view, also the children of the matching requirements. The icons of these items are displayed in gray with a oicon to indicate that they are out of the scope of the current category. If you want to see only those requirements that match the defined category without reference to their hierarchical position, select Define view > Flat view, and click Apply.

Setting sort fields

You can determine the order in which items are displayed by sorting the items by a specified field.

Note: In the Requirements module, you need to select **Flat view** in order to set fields for sorting.

- 1. Click Add sort field.
- 2. Select a field from the drop-down list. You can arrange the items in ascending or descending order.

When you have finished defining the categories and the sort order, click **Apply**.

To clear a view, click **Define view** and clear the category and sort fields. Click **Apply**.

Filtering

You use a filter to limit what data is displayed. When you add a filter, ALM displays the specific items that match the conditions that you set.

Filters are useful for monitoring and tracking entities, as they allow you to focus on the information that is important to you. For example, you can create a filter to display all defects assigned to you, with a status field value of *Not fixed*. That way

you limit the defects displayed to the items assigned to you, that need your attention.

Adding a filter

- 1. Click Add Filter.
- Select a field for filtering the items. A filter panel opens with condition statements and values specific to the field that you selected. Where the field has no predefined values, such as a free text field like Name, no values are displayed.
- 3. Click the condition field and select a statement from the list.
- 4. Select one or more field values from the list. If there is no list, enter a value.

Continue adding additional filters as required.

Requirements module: When Hierarchy view or Hierarchy with children view is selected, there may be items in the view that don't meet the filter conditions. These are displayed to preserve the hierarchical structure and give you am overall perspective by displaying the parent-child path to the matching requirements, and in the Hierarchy with children view, also the children of the matching requirements. The icons of these items are displayed in gray with a icon to indicate that they are out of the scope of the current filter. If you want to see only those requirements that match the defined filter without reference to their hierarchical position, select Define view > Flat view , and click Apply.

Choosing between detailed or summary information

You can choose between displaying:

Entity Details

Detailed information relating to a selected entity, including comments, attachments, traceability and history.

Summary details of a list of entities in a grid

When entities are displayed in a grid, click the ID link of an entity to switch to

displaying detailed entity information, or select the item and click **Details** in the bottom toolbar.

A combination of both

When items are arranged in a grid, click **Split Pane** to display a grid in the top half of the pane, and details of a selected item in the bottom half. You can choose what tabs are displayed by clicking on the right hand side of the preview pane. To remove the details preview pane, click **Full Pane**.

Choosing columns

In a grid, you can choose which columns are displayed. You can also change the order in which columns are displayed, by dragging and dropping them.

To remove a column, hover over a column header and click

The position of Select All, Children (Requirements module), and ID is fixed, and these columns can't be removed.

Workspaces

Workspaces are customized views made up of one or more of the following elements:

- Settings used in Define view
- Filters
- Selected columns

Once you have set up your display as explained above, you can save your view as a workspace. The workspace can then be loaded in the future as needed. To remove a loaded workspace you can either clear the workspace or load another one in its place. You can also modify a workspace, share it with all users of the project, or add it to your list of favorites for quick access. Shared workspaces that you created can be unshared, and workspaces that you no longer use can be deleted.

A workspace is unique to the module in which the view is created. For example, the Workspaces menu in the Requirements module will contain only views created for this module.

Some functionality may not be available to you depending on the permissions that your administrator has assigned to you.

Requirements module: By default, workspaces are loaded in Manage mode. To view a workspace created in Author mode, load the workspace and switch to Author mode.

See also

- "FAQs" on page 31
- "Getting started with the Requirements module" on page 39

Common actions

There are a number of things that you can do in the ALM Web Client that can be done in all modules. The following functionality is common to all ALM Web Client modules:

"Common actions toolbar" below

"Keyboard shortcuts" on the next page

"Adding comments" on page 25

"Using traceability" on page 27

"Working with attachments" on page 25

"Viewing the history of an item" on page 29

"Locating an entity using Go to entity ID" on page 29

"Exporting data" on page 29

"Memo field actions" on page 30

Common actions toolbar

When you select one or multiple items in a grid, the common actions toolbar is displayed at the bottom of the window. Use the toolbar to perform the following actions:

- · View or edit details of the item
- Delete one or multiple items
- Add an item before or after a selected item (Requirements only)
- Copy, cut or paste items

Note:

- The buttons available on the toolbar differ depending on the module selected.
- Not all options are enabled when selecting multiple items.
- Some options may be disabled depending on the user permissions that your project administrator has defined for you.

Keyboard shortcuts

You can use your keyboard to perform the following common actions in a specific module:

Keyboard keys	Action
ALT G	Go to entity
ALT F5	Internal refresh
ALT N	Add entity
ALT F1	Open the Help Center (online help)
CTRL left arrow	When viewing the Details of an entity in a flat view, moves to previous item.*
CTRL right arrow	When viewing the Details of an entity in a flat view, moves to next item.*
CTRL up arrow	When viewing the Details of an entity in a flat view, switches back to the grid.*

^{*} Not available from inside a field, or when viewing details in a split pane.

Adding comments

Comments are useful for discussing issues regarding a specific entity and are important for collaboration with other ALM users. Comments are displayed in the Comments tab of an entity.

- 1. In the Details of the entity, click the Comments tab. Click Add comment in the text editor toolbar. A new section is added to the comments field with your user name and the current date.
- 2. Type your comment. You can use the text editor to change the font type and size, or to format your text.
- 3. Click Save to update the entity.

Working with attachments

Use attachments to provide additional background information relevant to the item. For example, for a defect you can attach a screen recording of the scenario in which the bug occurred. You can add attachments when adding a new entity or add them at a later stage.

You can add, access, and manage attachments in the Attachments tab of the entity. The Attachments tab is entity specific, and displays only files attached to the selected entity. When editing or deleting attachments, you can select a single attachment or multiple attachments. A blue boundary indicates the selection.

Download an attachment from the Attachments tab of an entity by clicking .



Adding an attachment when adding a new entity	Adding an attachment to an existing entity
Do one of the following: a. Click Attach (top left-hand corner of the Add Entity dialog box) and select the file you want to upload.	Do one of the following: a. In the Details of the entity, click the Attachments tab. Click Add attachment and select the file you want to upload.
 b. Drag and drop the file from Windows Explorer onto the Add Entity dialog box. 	 b. Drag and drop the file from Windows Explorer onto any tab of the entity.
2. To rename the file or to add a description, click the file name in the yellow panel at the top of the Add Entity dialog box. Although the file name is displayed in the panel, the actual attachment is only uploaded when you save the entity. Click to remove an attachment from the panel.	 c. Copy and paste images or screenshots from the clipboard directly to the Attachments tab (Chrome browser only). 2. When the attachment is uploaded, it is displayed as a tile including an icon for the application associated with the attachment, as well as file details such as name, size, and modification date. To rename the attachment, select the file name field
3. Click Add to save the new entity. The attachment is uploaded and displayed in the Attachments tab as a tile including an icon for the application associated with the attachment, as well as file	and make your change. 3. Save your changes. You can update multiple attachments and then save all your changes at once by clicking Save.
details such as name, size, and modification date.	

Tip: Add a description so that other users know what the file contains and whether this is relevant to them.

Image attachments

Click the thumbnail of an image file attachment to preview the image. A broken image attachment is displayed when a file with an image extension is attached

but the image can't be displayed. This can happen if the file is corrupt or has a file size of zero, or if the file is not really an image file but was renamed with an image extension.

Note: An image inserted in a memo field of an entity is also added as an attachment and displayed in the **Attachments** tab.

Using traceability

Traceability establishes a link between one or more entities so that interdependencies can be tracked to manage the lifecycle of the application more effectively. You can add traceability links for an entity or view existing links in the Traceability tab.

In the Details of the entity, open the **Traceability** tab. Use the view selector on the right-hand side of the traceability toolbar to choose between a summary view

or a specific traceability link view. The specific views available depend on the module that you are working in.

Summary view	Specific view
Displays all types of traceability links	Displays a specific type of traceability link
Summary information	More detailed information

Specific view Summary view Displays up to 100 unique items per Displays all traced items, and may entity listing. Items are consolidated include duplicate items. Duplicate items in this view. If there are several are not identical as the nature of the link traceability links to the same entity, is different. only one representative link is For example, Requirement 1 and its displayed. children Requirement 11 and For example, Requirement 1 and its Requirement 12 are linked to Defect A. children Requirement 11 and In the **Traceability** tab of *Requirement 1*, Requirement 12 are linked to Defect select the Linked defects view and A. In the **Traceability** tab of **Include children**. *Defect A* appears Requirement 1, select the **Summary** three times in the grid. However, the grid rows are not identical because the data view and Include children. Although Requirement 1, Requirement 11 and in the Linked Entity ID fields is different. Requirement 12 are all linked to Defect A, Defect A is only listed once. Q. Search for a Requirement | « | D: 365 | Requirement 1 Test Coverage Items can't be filtered You can filter the entity data, or select what information is displayed by changing the columns selected. Fields relating to the link itself such as Linked Entity Type or Link Comments can't be filtered at this stage. You can't remove a traceability link in Traceability links can be removed this view

When a filter has been applied to a specific traceability view, if you switch to Summary, only matching items are visible and a filter icon is displayed. Click the icon to see the filter details. For more details on traceability see "Monitoring and managing requirements" on page 56 or "Using traceability links to defects" on page 70.

Viewing the history of an item

You can see the change history of a selected item in the **History** tab in the Details of an entity. Hover on the purple dots to get the full date and time of each change. Some of the texts in the history records are truncated. Hover on the text to display a tooltip with the complete text.

What changes are recorded?

Changes to all fields that have been defined to include a history of changes. (Your administrator determines which fields should include history.)

What information can I see for each change?

- Who made the change
- The date and time of the change
- The old and new value of field

Tip: Use the filter to remove less recent changes from the view, or to display changes for a specific field only.

Locating an entity using Go to entity ID

When creating a new entity, ALM automatically assigns a unique ID number to that entity. You can navigate directly to an item by entering the entity ID and clicking Go to. Click vin the entity ID field to display the Go to entity history. You can navigate to a specific entity by selecting an item from the list of previously used ID numbers.

Exporting data

You can export data from a grid or from Author mode (Requirements module) to HTML, Word or PDF format by selecting **Export**. In a grid, you can choose to export all the data, or only selected items. The export operation does not include any unsaved changes, so if you have recently made modifications to an entity that you would like to include in the exported data, make sure to save your changes first.

Memo field actions

Memo fields are entity fields that allow for rich text content. The **Description** field is an example of a memo field. You can perform the following actions in memo fields:

- Text in memo fields can be formatted using the formatting toolbar.
- You can paste images or text directly into a memo field using CTRL + V, or using the right-click menu.
- Right-click menu options are available when selecting content.
- Words that are spelled incorrectly are highlighted by your browser spell checker.
 If you select a misspelled word and press CTRL + right mouse button, the spell checker suggests corrections and you can select the right word.

Note:

 Images pasted in memo fields are also added as attachments. In the ALM Desktop Client, when viewing a memo field with an image in the entity preview pane, a placeholder image is displayed instead.

Microsoft Internet Explorer. Spell check in memo fields is not available.

See also

- "Displaying what you need" on page 19
- "Editing requirements" on page 50
- "Updating defects" on page 69

FAQs

Here are some frequently-asked questions about using the ALM Web Client

Tip: Do you have some tips you'd like to add? Email us at sw-doc@hp.com.

I work on a number of projects in ALM and want to work on them in the ALM Web Client. Why can't I see all my projects when I try to select a project?

If your project is a version control project, it will not be available in ALM Web Client.

Why can't I see the Requirements/Defects module?

If you don't have permission to access a particular module, the module will not be listed.

How can I email an entity to another project user?

Copy and paste the URL into an email. Other ALM Web Client users can use the link to access the entity.

Why can't I add comments and attachments to entities?

You may not have permission to modify entities.

How can I print data from my project?

Export your data from a grid view or from Author mode (Requirements module) to HTML, Word or PDF format by selecting Export. You can then print your data or copy or paste it into other formats that are not available.

I clicked define preset values but I can't fill in any values in the fields?

When you add a new entity, first fill in values for the fields. Only once you have completed the fields in the Add entity dialog should you click **Define preset values** and select the fields to save in the template.

Why does the drop-down arrow for loading a template not appear when I click the Add requirement button?

The drop-down arrow only appears if you have defined your own preset value templates for a particular entity. You can check what templates you have defined by selecting User Settings > Manage Preset Values.

I defined values for some fields in a preset value template. When I load the template, one of the field values is different from the one that I set. Why is this happening?

Some field values may be determined by rules created by your administrator. In these cases, the preset value that you define may be overridden.

In the traceability tab of a selected requirement I see the same defect appearing several times in the Linked defects view. When I switch to Summary view, the defect only appears once. Why does this happen?

In the Summary view, there is consolidation of traceability links. What this means is that if there are several links to the same entity, only one representative link is displayed. This can happen when a requirement and its children are all linked to the same defect, and you select Include children. This consolidation does not take place in the specific traceability views. You will notice In the Linked defects view that although the Defect ID is the same, the items are not identical because the Link ID field is different. Fore more details, see using traceability.

Why can't I log into the ALM Web Client as a different user in the same browser window as another user? I keep entering the ALM Web Client without an opportunity to log in as a different user.

You actually can! Depending on your browser, there are ways that you can open a separate browser session (not a tab within the same browser) that does enable you to log in to the ALM Web Client as a different user connecting to the same ALM.

- Internet Explorer: Use InPrivate browsing.
- Chrome: Use Incognito mode.
- Firefox: Use Private browsing.

The same issue and solution applies to ALM Web Client Customization also.

See also

- "Using the ALM Web Client" on page 11
- "Common actions" on page 23

Chapter 3: Working with requirements by job function

ALM's Requirements module helps you to define, manage, and track requirements at all stages of the application lifecycle. Working with requirements in the ALM Web Client involves the following tasks:



Note: Depending on what permissions you have, you may not be able to perform all these tasks.

Working with requirements involves collaboration across different job functions and teams. Whether you are a business analyst or part of the development team, you can use ALM to plan, define, and collaborate on a set of requirements.

See the next page for use case scenarios explaining how the following job functions work with requirements:

- Business analyst
- Development Team lead



BUSINESS ANALYST

Alternative job titles Functional architect Product manager Product owner

Responsible for creating, updating and managing the business and functional requirements

Define



Define the business requirements

Using Author mode, start writing your business requirements document. Describe the business needs in a clear manner. Create sections and sub-sections to add a logical flow to your document. You can also paste diagrams or images into your document.

Tip: Have your administrator set up a "QuickAdd" requirement form for users from the Business Analyst group, requiring only a Type and Name field. A default value should be set for the **Type**. This way you focus on writing up your document, without having to complete additional requirement details.



Send for review

Collaborate with other stakeholders by sending the requirements document for review. You can copy the URL of your document and email it to other stakeholders to view in ALM, or export from Author mode to Word or PDF Format.

The following additional actions can be performed while defining your requirements, or after they have been reviewed and agreed to, as part of refining requirements during the Edit stage.



Select a value from a drop-down list of the Priority field.

Tip: Have your administrator set up the Priority field with a drop-down list of values that support your business processes.



Assign status

Use a status field to track your requirements. The initial status of a new requirement is usually Draft.

Tip: Have your administrator set up a Status field with a drop down list of values that support your business processes.



Assign to release and cycle

Select a value from the drop-down list in the Target Release and Target Cycles fields of the requirement.

Edit



Detail requirements

Add more details to your requirements document. Complete the fields that you left out when you first created the requirements.



Comment

Add comments to questions or other comments that stakeholders added during their review, and if needed, update the requirement accordingly.



Add supporting resources

Often you will have supporting documents, created in other applications, that belong with a requirement. Attach these documents to your requirements to add valuable background information.

Manage relationships between requirements

Add traceability links between a selected requirement and other requirements. Some requirements may need to be changed in the future, so traceability will allow you to easily identify other requirements affected by the change.

Move requirements

Requirements and development plans can change, and you may need to reorganize your

requirements to match the breakdown and structure of your planned delivery. You can move requirements around, or change their order.

Update status

Using a status field to track your requirements is an ongoing process. As your requirements move from stage to stage in their lifecycle, update their status by selecting the appropriate values from the dropdown list. Some typical values for the status field are: Draft, Reviewed, Scoped, In Progress, Implemented, In Testing, Tested, Delivered, Cancel, Descoped.

Monitor

Track your requirements

Define views and filters for monitoring your requirements so that you can identify those items that need your attention. You can then save the views as workspaces for use in the future.

For example, you can define a category view of all requirements for the upcoming release, with a Priority of Urgent, and then add a filter to display only those requirements with a Status of Open. Based on this you may decide that additional resources are required, or you may descope some items from the release. You can click on the ID link of a particular requirement to view its full details.



Monitor traceability

Check if there is test coverage for a specified requirement, and see the status of the tests.

Once development starts, monitor the quality of your application by keeping track of the number and severity of defects related to a particular requirement.

When changes to requirements are needed, identify interdependencies between requirements so that you can see the full impact of a proposed change.

This is an example only. As ALM is highly customizable, your organization may use different work processes and requirement fields from those presented in this scenario.



DEVELOPMENT TEAM LEAD Responsible for ensuring that the application is developed on time and according to the requirements





Break down the requirements

Break the high level requirements created by the business analyst down into child requirements, to create smaller more manageable deliverables for the

development team. If your organization has several development teams, it can also be useful for tracking purposes to use a field for the team responsible for the requirement. For each child requirement, include a description of the functionality that needs to be developed.

Tip: Define a category view by Target Release and team responsible for the requirement. When you add requirements under the category folder for your team, the new requirements are automatically assigned to your team, and the Target Release field is assigned the same value as the Target Release category folder.



Set your team's priorities for the child requirements. Select a value from a drop-down list of the Priority field.

Tip: Have your administrator set up the Priority field with a drop-down list of values that support your business processes.



Assign to cycle

Select a value from the drop-down list in the Target Cycles field of the requirement.

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Estimate development time

A field for estimated development time (days) for each requirement can help you to plan the development effort, and distribute the

workload. If the given development time for building the application exceeds the number of days until the release, you may need to remove some lower priority items.

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Distribute the workload

Use an owner field to assign each requirement to a developer. Select the owner from a drop-down list of users.

Tip: Have your administrator set up rules so that when you assign a requirement to a developer, the developer gets notified by email.

Assign status

Track your requirements using a status field.
Some typical values for the status field are: Draft,
Reviewed, Scoped, I Progress, Implemented, In
Testing, Tested, Delivered, Cancel, Descoped. The initial
status of a new requirement is usually Draft.

Tip: Have your administrator set up a status field with a drop down list of values that support your business processes. Your administrator can also define email rules to notify you whenever there is a change in the status of a requirement.

Edit

Add details to requirements

Complete fields that you left out when you first created the requirements.

Keep your statistics up to date

Fields such as number of remaining days required to complete the requirement, and number of invested days will let you see if your team is on track. As development progresses, have team members update these fields for the requirements assigned to them.

Attach additional information

Attach any relevant information associated with the requirement such as notes from meetings or email threads.

Update status

Update the status field to continually track progress on your requirements. For example, as a developer starts to work on a requirement, have them change the status to In Progress. When the functionality defined by the requirement has been developed, the developer should change the status to Implemented. That way you can track the progress of your team, and QA knows what functionality is ready for testing.

Monitor

Track your requirements

Check for requirements without an owner.
Add a filter to display your team's
requirements with an empty owner field.

Define views and filters for monitoring how your team is doing. For example, you can define a category view by owner and status, and then add filters to display requirements for the upcoming release cycle, for which your team is responsible. You can click on the ID link of a particular requirement to view its full details*.

Tip: Save your views as workspaces, so that you can use them again in the future without having to redefine them.



*In the traceability tab of the requirement you can see the status of test coverage and defects related to a particular requirement.

This is an example only. As ALM is highly customizable, your organization may use different work processes and requirement fields from those presented in this scenario.

See also

- "Requirements overview" below
- "Using the ALM Web Client" on page 11

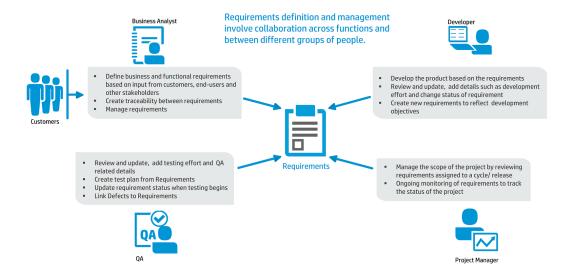
Requirements overview

Requirements describe in detail what needs to be solved or achieved to meet the objectives of your application. Requirements create a clear picture of the deliverables, and are critical to a project's success. Poorly defined requirements can lead to IT projects that are over budget, lack functionality, and are not delivered on time.

One of the keys to developing applications that meet business needs and user expectations is to define the requirements up front. Clearly and correctly defining requirements at the start of a project has the following advantages:

- Creates a common vision of what needs to be delivered
- · Sets clear expectations and priorities
- Cuts waste

Defining and managing requirements involves collaboration between many people, across different job functions. Whether you are a business analyst, project manager, or part of the development or QA team, you can use ALM to plan, define, communicate, and collaborate on a set of requirements.



Note: Some of the functionality in the diagram above requires working with the ALM Desktop Client. For more information on suitable candidates for using the ALM Web Client, see "The ALM Web Client Overview" on page 7.

How to get started with defining requirements

Start by gathering information such as functional and technical specifications, marketing and business requirements documents, and stakeholders goals.

Here are some of the questions that you can ask:

- What is the main purpose of the application?
- What challenges do you have today with your current processes that you are you trying to solve?
- What are the major features of the application?
- What are the critical constraints of the application?
- What is the relative importance of each element in the application functionality?
- What are the critical or high-risk functions of the application?
- What are your business or testing priorities?
- Do your customers/end-users agree with your priorities?

You are now ready to begin defining and detailing your requirements. When defining requirements in ALM, you can choose from a selection of ready-made default requirement types, or your administrator can create custom requirement types suited to your organization to capture all levels of requirements. The table below shows some of the default requirement types:

Requirement Type	Use
Business	Specifies the high level objectives that describe what the application as a whole must deliver to the business and its endusers
Functional	Details what the application must do in order to achieve the business requirements
Group	Represents a collection of related requirements
Testing	Specifies the testing areas and use cases that need to be covered

As part of defining a requirement, you can attach supporting documents to provide background information. Requirements can also be updated when necessary as development of the application progresses.

Managing requirements

Once the project requirements have been detailed and approved, you can manage and monitor them. Defining links between requirements and other entities will allow you to monitor inter-dependencies. You can use traceability to view links between requirements and other entities, to create links between requirements and other requirements, or between requirements and defects. Keep track of your requirements and assess the readiness of the application with filters, dashboards, and reports.

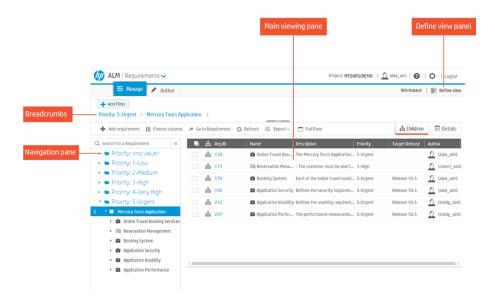
Note: Comprehensive requirements management capabilities are currently available only in the ALM Desktop Client. For more information, see the HP Application Lifecycle Management User Guide.

See also

"Working with requirements by job function" on page 33

Getting started with the Requirements module

When you select the Requirements module from the masthead, the Requirements window opens.



Defining the view

You can toggle between several types of views. Both the Hierarchy and Hierarchy with children views preserve the hierarchical structure of the requirements, whereas the Flat view displays requirements all at the same level. The difference between the Hierarchy and Hierarchy with children view is only evident when using categorization or filters.

View Type		Display
H ₂ H	Hierarchy	When using categorization or filters, this type of view preserves the hierarchical structure of the requirements and displays the parent-child path to the matching requirements. Items that don't match the category or the filter are indicated with an out-of-scope oicon.
=	Hierarchy with children	This view is similar to the hierarchy view above. When using categorization or filters this type of view displays the parent-child path to the matching requirements, but in addition provides a more complete view by also displaying the out-of-scope children of the matching requirements. Out-of-scope items are items that don't match the category or the filter. These items are indicated with a \bigcirc icon.
	Flat	Requirements are displayed without a hierarchy. When categorization or filters are applied, only matching requirements are displayed.

If your project has requirements and is not a new project or an existing project without requirements, you can define a view with category folders. When you add category fields, you create virtual category folders for displaying your requirements based on the fields that you define. You can select up to four hierarchy levels.

Category views enable you to quickly manipulate your project data and to create dynamic views. These views arrange large amounts of project data in a way that allows you to analyze and manage the information more effectively. You can also drill down within a view to see more detailed information of a particular item. For more details on defining the view, see "Displaying what you need" on page 19.

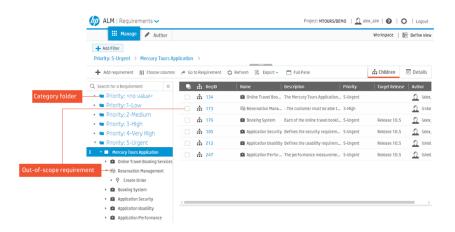
Using the navigation tree

The navigation pane displays the hierarchy of requirements in a tree structure.

- Requirements are created at multiple levels either above, below, or at the same level as other requirements. This results in a physical hierarchical structure.
 When no categories are defined, the tree displays the requirements according to their actual physical hierarchy.
- Category views use field values of requirements to create virtual category folders. These folders are superimposed on the actual requirements tree, and so the tree includes both category folders and requirements. Categories are

displayed in blue with a category icon . When the item in the tree is a requirement, the icon next to the item indicates the requirement type. As the requirements themselves are not physically located in these virtual folders, they do not need to match the categories. Often a parent requirement will not match a particular category but will have a child or grandchild requirement that does. In order to preserve the physical hierarchical structure, the parent requirement must appear even though it is not part of that category. A requirement that doesn't match the category folder under which it appears is displayed in light gray with an out of scope icon .

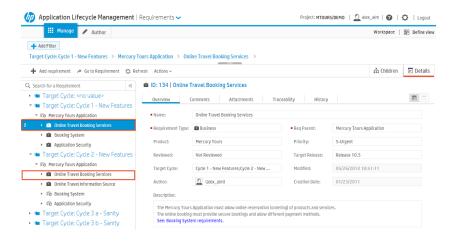
Note: Requirement entries are shown under the lowest defined category.



When a category view is applied to a field that has multiple values, the same requirement will appear multiple times as it belongs to more than one category.

For example

Requirement Online Travel Booking Services is assigned to Target Cycle 1 - New features and Target Cycle 2 - New features & Regression. If you define a category view to display requirements by Target Cycle, Online Travel Booking Services will be displayed under both categories.



You can resize the width of the navigation pane. You can also collapse the pane by clicking \checkmark in the top right corner, which will enlarge the viewing area so to that more data can be displayed.

When you define the view to display requirements with no hierarchy, and no category fields are defined, there is no navigation pane.

You can also navigate the tree using the following keys:

- Up arrow. Moves up.
- Down arrow. Moves down.
- Right arrow. Expands the item
- Left Arrow. Collapses the item.
- Enter or Space. Selects the item.

Breadcrumbs navigation bar

The breadcrumbs navigation bar is displayed on top of the tree pane and the view area. The bar represents the path in the tree hierarchy including both category items and requirement items. When you select an item in the tree, the corresponding path is shown in the breadcrumbs navigation bar.

You can navigate quickly through the hierarchy by selecting any breadcrumb link from the navigation bar. You can also select a neighboring item by clicking the breadcrumb separator icon and selecting an item from the drop-down list. Lowest level items that have no items under them are displayed in gray.



The breadcrumbs navigation bar is also displayed when the tree pane is collapsed.

Changing the display in the main viewing area

The way in which information is displayed in the main viewing area is determined by the view that you define, as well as the following:

The mode selected

Manage mode displays the information in a data-centric view. In this mode, when the view is defined as a hierarchical view, you can choose how information is displayed in the main viewing area by switching between **Details** and **Children**. **Details** displays specific detailed information of a selected requirement. **Children** displays a grid with summary information of the child requirements of a selected requirement.

Author mode displays requirements in a document view.

The item selected in the navigation tree

When the navigation pane is displayed, selecting an item from the tree displays information corresponding to that item in the main viewing area.

For more details on changing the display, see "Displaying what you need" on page 19.

See also

- "Displaying what you need" on page 19
- "Working with requirements by job function" on page 33
- "FAQs for requirements" on page 60

Defining requirements



Begin by adding new requirements and defining them.

Tip:

- You can create a basic framework of high level requirements, and then add child requirements to further break them down. Splitting a higher level requirement into smaller child requirements can be helpful in providing team members with a better understanding of what specifically needs to be achieved, and can give a more accurate picture of progress on the requirement.
- Developers may find it useful to break a feature down into smaller deliverables by creating child requirements.

To add a new requirement, you must have permission from your administrator to do so.

ALM Web Client's Requirements module supports a dual approach to working with requirements, and you can choose the mode that best suits the way you like to work. Use Manage mode if you prefer a data-centric approach. If you prefer working with requirements in a document view, you can work in Author mode.

Adding a requirement using Manage mode

- In the masthead, select the Requirements module and make sure that Manage mode is selected.
- 2. Decide where to add the requirement. The breakdown and structure of the requirements should match your planned delivery.

Tip: If you have defined a category view for your requirements, adding a new requirement under a specific category folder will automatically populate the new requirement with the corresponding category field values. For example: If you define your category view to display requirements by Product and then by Priority, when you add a new requirement under the Product *Mercury Tours*, Priority *5-Urgent* categories, the product and priority fields of the new requirements are automatically completed with the category values.

- 3. Add the requirement by using one of the following options (all options open the Add Requirement dialog box):
 - Select an item in the requirements tree and click Add Requirement to add a child requirement to the selected item.
 - Select a requirement in the Children grid, and click Add Before or Add After to add a new requirement either before or after the selected requirement.
 - If you are viewing requirements in Flat view, click Add Requirement. You will need to assign a parent to the requirement in order to add it.
- 4. If you've defined preset value templates, your Default template will be loaded when you add a requirement. To load a different template, click the drop-down next to the Add Requirement button template to be loaded for one-off use.
- 5. Select the requirement type that best describes the requirement you are creating such as business, feature, functional, non-testable requirement, etc.
- 6. Give the requirement a name and complete any other required fields, indicated by a red square to the left of the field name. Fields that have been grayed out are read-only fields.

Tip:

In list fields, click on the field and start typing any part of the value. The autocomplete functionality displays matching suggestions enabling you to quickly locate list options.

For fields that require a selection of a value from within a tree, for example *Target Cycle*, fill in part of the value in the search field above the tree to quickly locate the value in the tree.

- You can also add attachments and detail the requirement by completing the non-required fields. This can also be done at a later stage when editing the requirement.
- 8. If you don't already have a preset value template for your requirement, decide if you want to create one.

Preset value templates are useful if you often use the same values for particular fields when adding requirements, or if you use several types of requirements each with a different set of fields, and you would like to assign different initial values for the fields depending on the requirement type.

To define a preset value template:

- a. Click Define preset values.
- b. Give your template a name. To use the template that you are currently defining as the default template, select Set as default for adding new entity. When you define a template as the Default, the next time you add a new requirement, the values defined in the Default template will be loaded automatically.
- c. Select the fields to be included in the template. Selected fields are marked with blue border.
- d. Click Save.

Note: Some field values may be determined by rules created by your administrator. In these cases, the preset value that you define may be overridden.

9. Click Add to save the requirement, or click Add & Another to save the requirement and to immediately add another one.

Adding a requirement using Author mode

Note:

- Author mode is disabled when requirements are displayed with no hierarchy. To enable Author mode, select Define view, switch to Hierarchy view or Hierarchy with children view and click Apply.
- Requirements are displayed in Author mode only if the type of the selected requirement, or the type of one of its parents, is configured to display in this mode. For details, see More about author mode. If there are no requirement types configured to display in this mode, contact your administrator.

Tip for getting started quickly in a new project

- Click Add Requirement and add a new requirement of a type that has been configured to display in author mode. For details, see More about author mode.
- 2. The name of this requirement should be the title of your document. Complete any other required fields.
- Select the requirement that you created and click Add Requirement to add a child requirement. The requirement can be of any type. Complete the required fields.
- 4. Click **Refresh**. You should now be able to display the requirements in **Author** mode.
- 1. In the masthead, select the Requirements module and make sure Author mode is selected.
- Decide where in the document you want to add the requirement by moving the mouse cursor to the place where the new requirement should be inserted. The breakdown and structure of the requirements should match your planned delivery.

Although Author mode displays the content as one document, each

requirement is managed in a separate edit box. As you move the mouse between requirements, a gray dotted line with an **Add requirement** button is displayed. If you are below a requirement that has child requirements, the button option is **Add child requirement**. If you are below a requirement that has no child requirements **Add sibling requirement** will be displayed. Click the button to add a requirement.

Tip: If you have defined a category view for your requirements, adding a new requirement under a specific category folder will automatically populate the new requirement with the corresponding category field values. For example: If you define your category view to display requirements by Product and then by Priority, when you add a new requirement under the Product *Mercury Tours*, Priority *5-Urgent* categories, the product and priority fields of the new requirements are automatically completed with the category values. Although these fields are not displayed in the document, you can view them at any time by clicking the section number to the left of the requirement name to open the Requirement details dialog box.

- 3. Fill in the requirement name.
- In the area below the name, add a description. You can use the editor toolbar for rich text editing of this text. You can also paste images from the clipboard into this area.

Depending on how your administrator has configured the settings for author mode, the text that appears under the requirement name is either the Description field of the requirement, or the contents of the Rich Text tab of the requirement in the ALM Desktop Client.

- 5. To view requirement fields that are not displayed in Author mode, click the section number of the requirement to the left of the requirement name.
- 6. When you leave the requirement, your changes are saved automatically without having to click **Save**. If there are missing required fields, you will be prompted to complete these fields before saving the requirement.

See also

- "Working with requirements by job function" on page 33
- Managing preset value templates
- "Common actions" on page 23
- "Displaying what you need" on page 19
- "FAQs for requirements" on page 60

Editing requirements



Requirements usually go through an iterative process where the details are refined and clarified, and the requirement needs to be edited. As work on the requirement progresses, some of the fields may also need to be updated in order to allow proper tracking of the requirement. For example, some organizations use a status field to track the progress of a requirement. Users update the value from *Draft* to *Reviewed* to *Scoped* etc. as work on the requirement progresses.

You can update the details for each requirement, or add attachments and comments. As requirements change, you can also rearrange them and move them around. To edit or delete a requirement you must be given these permissions by your administrator. Fields that are grayed out cannot be edited.

While multiple users can view a requirement simultaneously, only one user at a time can update a requirement. If you try to edit a requirement that someone else is editing, you will be notified that the requirement is locked by another user. Once the other user saves the change, the requirement is unlocked. However, if someone saves a change to a requirement that you are viewing, and you then start to make changes to the requirement, you may receive a message from the server that your changes have been overridden by the newer values.

ALM Web Client's Requirements module supports a dual approach to working with requirements, and you can choose the mode that best suits the way you like to work. Use Manage mode if you prefer a data-centric approach. If you prefer working with requirements in a document view, you can work in Author mode.

Using Manage mode

Updating a requirement

1. In the Requirements module, make sure **Manage** mode is selected, and locate the requirement that you want to update.

Tip: To quickly locate a requirement, fill in part or all of the requirement's name in the search field at the top of the navigation pane.

2. Modify the details in the appropriate fields or tabs of the requirement.

When viewing **Details**, you can modify the fields directly in the view. When viewing requirements in a grid, if the preview pane isn't open, click **Split Pane**. You can modify the field details in the preview pane. Alternatively, click the ID link or select the check box of a requirement in the grid, and click **Details** on the bottom toolbar to open the requirement details for editing.

While on the modified record, you can undo the changes by clicking **Restore**. Modified fields in the current record will revert to their previous values.

Click Save.

Tip:

- When using category folders, if you edit a requirement and change the value of the field on which a category folder is based, click Refresh to move the requirement to the corresponding category folder.
- You can move a requirement in the tree by assigning a new parent in the requirement parent field. This is also useful in Flat view when you want to change the parent requirement.

Drag and drop

Drag and drop functionality is only available when requirements are displayed with a hierarchy.

- Requirements tree. In the navigation pane, select the requirement that you want to move. Gray squares are displayed . Click the squares to drag and drop the requirement in the new location.
- Children. To re-order child requirements under the same parent, hover over the start of a row in the grid (to the left of the check box). Gray squares are displayed
 Click the squares to drag and drop the requirement to a new place in the grid.

Cut, copy, paste and delete

Paste is not available when requirements are displayed in Flat view without a hierarchy.

- Details. Select the requirement in the navigation pane. Click Actions and select the action to perform. The paste action is only displayed once you have copied a requirement.
- Children. Select a requirement. In the common actions toolbar, select the action to perform.

Note:

- Requirements currently cannot be moved between categories. To move the requirement to a different category, change the field on which the category folder is based.
- A deleted requirement is immediately removed from all the categories in which it is shown.
- When you delete a requirement, you also delete its child requirements.
 Traceability links to the requirement or to child requirements are also deleted.

Using Author mode

Requirements are displayed in Author mode only if the type of the selected requirement, or the type of one of its parents, is configured to display in this mode. For details, see More about author mode.

Note: Author mode is disabled when requirements are displayed with no hierarchy. To enable Author mode, select Define view, switch to Hierarchy view or Hierarchy with children view and click Apply.

Updating a requirement

1. Open the Requirements module and select **Author** mode. A document is displayed in the main viewing area.

Tip: You can navigate the document using the tree, the breadcrumbs, Go to Requirement, or the scrollbar.

2. Locate the requirement that you want to update and select it.

Tip: To quickly locate a requirement, fill in part or all of the requirement's name in the search field at the top of the navigation pane.

3. Change the displayed details directly in the document. Although Author mode displays the content as one document, each requirement is managed in a separate edit box. You can use the editor toolbar at the top of the document view for rich text editing of text under the requirement name. You can also paste a copied image into this area.

Depending on how your administrator has configured the settings for author mode, the text that appears under the requirement name is either the Description field of the requirement, or the contents of the Rich Text tab of the requirement in the ALM Desktop Client. To view or update other fields or tabs of the requirement that are not visible, click the section number (to the left of the requirement name) to open the **Details** dialog box of the specific requirement.

While you are in the process of editing a requirement in the document, click in the top right of the edit box to undo your changes. You can also click at any time to save recent changes. When you leave the requirement, your changes are saved automatically without having to click the save button.

Changing the hierarchical structure or the order of requirements

In the requirements tree, select a requirement, and drag and drop it into the new location. The document will be updated accordingly.

Requirements currently cannot be moved between categories.

You can also move an individual requirement up or down one level by selecting the requirement in the document and clicking decrease indent == or increase indent == at the top right of the edit box.

Deleting a requirement

To delete a requirement, select the requirement in the document and click \times .

Note: When you delete a requirement, you also delete its child requirements. Traceability links to the requirement or to child requirements are also deleted.

See also

- "More about Author mode" below
- "Working with requirements by job function" on page 33
- "Requirements overview" on page 36
- "Displaying what you need" on page 19
- "Common actions" on page 23

More about Author mode

A selected requirement is displayed in Author mode only if its type, or a parent requirement's type has been defined to display in this mode. This is done by your administrator in ALM Web Client Customization, by defining the requirement type as a document root. For more details, see Setting requirement type characteristics. In an addition, your Administrator can configure Author mode to display either the contents of the Description field or the Rich Text tab of a requirement in the area under the requirement name. For more details, see How to configure what is displayed for requirements in Author mode.

It is not always necessary to view all the requirements of an ALM project as a single document, and often it may be better to view certain types of requirements as several separate documents. In order to allow flexibility in determining the scope of document, the document root is used to determine the start of a new document view.

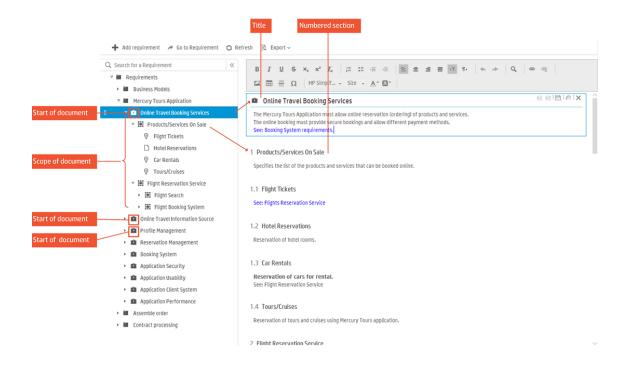
In Author mode, the document view spans from the highest level document root until the last of its children, irrespective of whether the child requirement types have been defined to display in this mode. The top level document root is displayed as the title, and all its children as numbered sections. When the type of a child

requirement of a document root is itself a document root, this will not mark the start of a new document.

When no requirement types have been defined to display in Author mode, a message is displayed in the view area. A temporary view is available by clicking **Try**, but the document scope is lost when refreshing or moving to a sibling or parent requirement.

and the Functional type to display as documents. In the scenario below, the top-level Business requirement *Online Travel Booking Services* marks the start of a document, and this requirement becomes the title. All child requirements are displayed as numbered sections in the same document. Although the Functional requirement type used for the *Flight Tickets*, *Car Rentals* and *Tour/Cruises* requirements has been defined to display as a document, these requirements don't each become the start of individual documents because *Online Travel Booking Services* is at a higher level in the requirement tree. Requirement types that are not defined to display as a document, such as the Undefined type used for *Hotel Reservations*, also become numbered sections in the document by virtue of the fact that they are child requirements of a Business requirement. The document ends with the bottom-most child requirement under *Flight Booking System*.

The Business requirements *Online Travel Booking Services, Online Travel Information Source* and *Profile Management* are sibling requirements at the same level in the tree, and so each of these marks the start of a separate document.



See also

- "Editing requirements" on page 50
- "Working with requirements by job function" on page 33
- "FAQs for requirements" on page 60

Monitoring and managing requirements



Monitoring requirements lets you keep track of the progress and quality of the application, and gives you an indication of how well the project is doing in terms of meeting its overall objectives. Using traceability, you can define links between requirements and other items so that you can monitor inter-dependencies and manage the application lifecycle more effectively. You can also use workspaces,

views and filters to focus on the information that is relevant to you, making it easier to identify problem areas and to assess the readiness of the application.

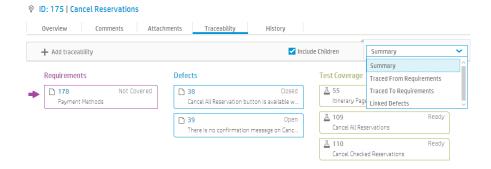
Traceability

Traceability establishes a link between one or more items, and offers the following benefits:

- You can analyze the impact that a proposed change to a specific requirement will have on other requirements and entities affected by the change. This provides broader visibility so that you make informed decisions about whether or not to make the change.
- You can see if there is test coverage to verify if a specified requirement is being met, and identify gaps in coverage.
- You can monitor the quality of your application by keeping track of the number and severity of defects related to a particular requirement.

Viewing traceability

In the Requirements module, open the Details of a selected requirement and click the **Traceability** tab. Existing traceability links for the requirement are displayed.



Summary view and specific views

The **Traceability** tab includes a summary view of all traceability links as well as specific traceability views. The summary view displays basic details of all traceability links. Specific views provide more detailed information about a particular type of link. You can drill down to a specific type of traceability link by selecting it from the view selector on the right-hand side of the traceability toolbar. For more details, see **Using traceability**.

The following specific views are available for requirements:

- Traced from requirements. Requirements that the selected requirement depends on.
- Traced to requirements. Requirements that depend on the selected requirement.
- Linked defects. Defects related to the selected requirement.

Include children

You can choose to display traceability links only for the selected requirement, or to also display traceability links for children of the selected requirement. To display links for children, select the **Include Children** check box on the traceability toolbar. Including children can be helpful for monitoring requirements as it can give you a better overall view of the status of your requirement. For example, you may have a parent requirement with no items in the traceability tab, with a child that has many traced from requirements with a direct cover status of *Failed*. By including children in the view, potential quality issues are noticeable already from the summary view of the parent requirement without having to look through the individual child requirements.

Include indirect links

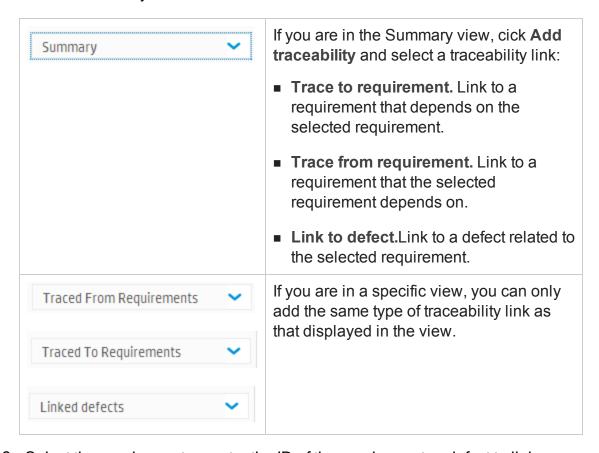
In the Linked defects traceability view, the default setting is to display both direct and indirect links. Currently in the ALM Web Client, when you link a defect to a requirement, the link is a direct one. However, in the ALM Desktop Client, you can link a defect to other entities. When you link a defect to an entity, ALM adds a direct link between the defect and the entity. However, if the entity to which you linked the defect is linked to other higher-level entities, these other entities become virtually linked to the defect. These virtual links are indirect links. For example, a defect opened from a step in a test will be directly linked to the step, but indirectly linked to the test and any requirements covered by the test. Including indirect links can give you a better indication of the quality of your requirements. If you want to display only direct links, unselect the Include Indirect Links check box. When the view does not include indirect links, a ** icon is displayed in the summary view.

Tip: Click the ID of any linked requirement or defect to view its details.

Adding and removing traceability

Adding traceability

- 1. In the Requirements module, open the Details of a selected requirement and click the Traceability tab.
- 2. Add a traceability link



3. Select the requirement, or enter the ID of the requirement or defect to link.

Removing traceability

This can be done only in a specific traceability view. Switch to the specific view, select the item/s in the grid and click **Remove Trace**.

Using workspaces

Use workspaces based on defined views and filters to monitor and manage your requirements. For example, you can create a workspace for viewing requirements

with a **Priority** value of *High*, *Very High* or *Urgent*, with a **Review** field status of *Not Reviewed*.

Note: Comprehensive requirements management capabilities are currently available only in the ALM Desktop Client. For more information, see the HP Application Lifecycle Management User Guide.

See also

- Using traceability
- "Displaying what you need" on page 19

FAQs for requirements

Here are some frequently-asked questions about working with requirements.

Tip: Do you have some tips you'd like to add? Email us at sw-doc@hp.com.

General

There are no requirements displayed in the main viewing area when I select a requirement in the tree. Where have my requirements gone?

If you are in Children view, the main viewing area will be empty if the requirement that you selected in the tree has no children.

I want to set the sort order for my requirements but the option is disabled. What do I do?

In order to add a sort field, you need to select Flat view.

I logged in to ALM and my requirements tree has gone. What has happened?

ALM saves the last view in which you worked during your previous session. When you log in to ALM again, this is the view displayed. In your last session you may have used a workspace, or applied a view to display your requirements without a hierarchy. Check if a workspace is loaded (the name of the workspace will appear next to Workspace menu). Load a different one or modify the existing workspace if needed. To bring the requirements tree back, click **Define view** and switch to **Hierarchy view** or **Hierarchy with children view**. Click **Apply**.

I want to add a requirement but there is no Add Requirement button. How do I add a requirement?

If you do not have permission to add requirements, the Add Requirement button is not displayed. Contact your administrator.

Author Mode

I am trying to view requirements in Author mode but the button is disabled?

Author mode is disabled in flat view. To enable the Author mode button, click Define view and switch to Hierarchy view or Hierarchy with children view. Click Apply.

I am in Author mode and I have selected a requirement, but there is a message that the selected requirement cannot be displayed. How do I get Author mode to display my requirements?

A selected requirement is displayed in Author mode only if its type, or a parent requirement's type has been defined to display in this mode. This is done by your administrator in ALM Web Client Customization, by defining the requirement type as a document root. For more details, see more about Author mode.

To get a general idea of what Author mode does, you can try it out by clicking **Try**. The document view is only temporary and is lost when you move to a parent or sibling requirement.

Can I print my requirements in Author mode?

Yes, click the Export button and select a file format. You can then print the file. If you have recently made changes to a requirement that you would like included in the exported data, click Save before exporting.

See also

- "Working with requirements by job function" on page 33
- "Getting started with the Requirements module" on page 39
- "Requirements overview" on page 36

User Guide

Chapter 4: Working with defects by job function

ALM's Defects module helps you to define, manage, and track defects at all stages of the application lifecycle.



How developers work with defects



DEVELOPER

DEFECTS MODULE

In addition to developing the application, the developer is responsible for repairing defects, tracking progress by creating and updating defects, and communicating status to other stakeholders.

Define



Search for a similar defect

To avoid creating duplicate details, it is good practice to first search for similar defects that already exist.

Use the View and Workspaces features to look for similar defects.



Edit

Search for your defects

Search for the defects assigned to you so you know what you need to repair in the application.



Use the View and Workspaces features to look for your defects. Narrow down your search to look for defects for a specific release and/or cycle.



Define defect

While developing, you might come across defects that need to be repaired. Define a defect by giving your defect a summary and a severity. A detailed description is always helpful. You can come back to fill in more details.



Detail the defect

Complete the fields that you left out when you first created the defect. For example, assign a different user based on availability or skill set.



Prioritize

Prioritize the work. Select a value from a dropdown list of the **Priority** field.

Have your administrator set up the Priority field with a list of values that support your business processes.



Assign to a release and cycle

When you are ready to schedule the defect for repair, assign it to a release and cycle. Select a value from the drop-down list in the Target Release and Target Cycles fields.



Add attachments

Attach any supporting documents that belong with a defect. These attachments can be pictures, video clips—anything that will help illustrate the problem that needs to be fixed.



Update status

Use the **Status** field to track your defect. Select the appropriate status from the drop-down list. Typically, developers select Open when starting to repair a defect and Fixed when done.



Have your administrator set up the **Status** field with a list of values that support your business processes.



When you know who will be responsible for fixing the defect, assign the defect to that user-maybe even yourself!



Add comments

Add comments and questions for other stakeholders. As stakeholders review your work, they can add comments and questions for you

This is an example only, and in your organization you may use different processes. Also, as ALM is highly customizable, the scenario may use fields that are not available in your organization.

How exploratory testers work with defects



EXPLORATORY TESTER

DEFECTS MODULE

The exploratory tester invents test cases and finds defects in the application based on his/her knowledge of the application. As defects are found, the tester tracks progress by creating and updating defects, and communicating status to other stakeholders.



Edit

Monitor



Search for a similar defect

To avoid creating duplicate details, it is good practice to first search for similar defects that already exist.





Search for your defects

Search for the defects detected by you.

Use the View and Workspaces features to look for the defects you need to test. Narrow down your search to look for defects for a specific release and/or cycle.



Track defects

Define views and filters for monitoring defects so that you can identify those items that need your attention. You can then save the views as workspaces for use in the future. For example, you might want to define a category view for the upcoming **Release**, with a **Priority** of *Urgent*, and then add a filter to display all defects with a **Status** of *Fixed*. You now have a list of the defects ready for testing.



Define defect

While testing, you come across defects that need to be repaired. Define a defect by giving the defect a summary and a severity. A detailed description is always helpful. You can come back to fill in more details.



Detail the defect

Complete the fields that you left out when you first created the defect.



Prioritize

Prioritize the work. Select a value from a drop-down list of the **Priority** field.

Have your administrator set up the Priority field with a list of values that support your business processes



Update status

Use the **Status** field to track defects and verify fixed defects. Select the appropriate status from the drop-down list. Typically, testers select *Closed* and *Reopen*.

Have your administrator set up the Status field with a list of values that support your business processes.



Monitor traceability

- Check that is there is test coverage for a specified defect
- When changes to defects are needed, use traceability to identify interdependencies between requirements and defects.
- Monitor the quality of your application by keeping track of the number and severity of defects related to a particular requirement.



Add attachments

Attach any supporting documents that belong with a defect. These attachments can be pictures, video clips—anything that will help illustrate the problem that needs to be fixed.



Add comments

Add comments and questions for other stakeholders. As stakeholders review your work, they can add comments and questions for you too.



Assign a tester

When you know who will be responsible for testing the repaired defect, assign the defect.

This is an example only, and in your organization you may use different processes.

Also, as ALM is highly customizable, the scenario may use fields that are not available in your organization.

See also

Administrators: "Customizing the ALM Web Client" on page 75

Defect overview

Ensuring the quality of your application is of utmost importance. Using the ALM Web Client you can report flaws in your application and track their repair. This can be done during all stages of the application management process. These flaws are reported as defects.

How ALM Web Client users collaborate

ALM Web Client users update and monitor defect statuses on an ongoing basis, providing full transparency to the state of application quality at any time.

Customers and Support: Application developers: While working with the Fix defects created by application, customers contact support if they encounter an issue Support creates defects to reporting on progress of repairs Link defects to related defects to ensure a comprehensive, complete fix for the customer QA testers: **Project Managers:** Monitor defects on an ongoing basis to make sure the application is delivered the application under test at a high level of quality and that defects are repaired at testing effort and QArelated details resolved comments and priority quality, of particular the loop

Defect definition and management involves collaboration across functions and between different groups of people.

How do I start working with defects?

 What information does each ALM Web Client user, based on his/her job function, need to access?

The ALM Web Client administrator can create custom forms for each job function. See "Designing and managing forms" on page 78.

Are there field values that some users should see, but not be able to modify?

Are certain fields mandatory under certain circumstances?

Are different field look-up lists needed at different times?

The ALM Web Client administrator can control how fields are displayed and modified using business rules. See "Defining business rules" on page 92.

See also

- "Working with defects by job function" on page 63
- Administrators: "Customizing the ALM Web Client" on page 75

Defining defects



You define defects to ensure the quality of your application.

- 1. Select the Defects module.
- 2. Verify that a similar defect has not already been created by setting up views and filters. For details, see "Displaying what you need" on page 19 and "Filtering" on page 20.
- 3. If the Add Defect page is not yet open, click **Add Defect**. If you've defined a default preset value template, its values are loaded. For details on creating and managing preset value templates, see "Manage preset values" on page 14.

Note: Business rules defined by your administrator might override your preset values. If this happens, contact your administrator.

Tip: To add a defect with preset values, you can click the drop down next to

Add Defect and select the template of values to load.

4. Fill in the various fields.

Tip: For list fields, click on the field and start typing any part of the value. The ALM Web Client suggests matching values.

To save these values as a template for future use, click **Define preset values**, name the template, select the fields for the template, and click **Save**.

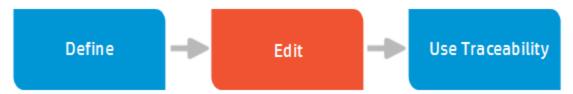
Save the defect.

- 5. After saving, click the defect ID to edit the defect and:
 - Add attachments. Screen captures and recorded sessions demonstrate problems much more effectively than words can. Click the Attachments tab to work with attachments. For details, see "Working with attachments" on page 25.
 - Insert comments. Comments are very useful for communication between various users. Each comment gets a timestamp and an indication of who added the comment. Click the Comments tab and Add Comment. For details, see "Adding comments" on page 25.
 - View history Do you need background information? Viewing the history of a defect can give you perspective over why a defect was opened, how many people have worked on the defect, and how a defect eventually became assigned to you. Click the History tab to view the history. For details, see "Viewing the history of an item" on page 29.
 - Create traceability. Is the determination of whether a requirement is met contingent on the defect you are adding? If so, creating a relationship between the relevant requirements and this defect. This lets you see how well your project is meeting its requirements. Click Traceability and create the relationship by typing in the requirement's ID. For details on traceability, see "Traceability" on page 57.

See also

- "Working with defects by job function" on page 63
- "Defect overview" on page 66
- "Updating defects" below
- "Using traceability links to defects" on the next page

Updating defects



ALM Web Client users update defects differently depending on their different work functions.

- 1. Select the Defects module.
- Look for the relevant defect, such as one assigned to you, by setting up views and filters. For details, see "Displaying what you need" on page 19 and "Filtering" on page 20.

Open the defect by clicking its ID number.

Tip: You can also open a defect by "going" to it. For details, see "Locating an entity using Go to entity ID" on page 29.

- Click the Overview tab.
- 4. While filling in the various fields, make sure to:
 - Change statuses. Did you start working on a defect? Did you fix a defect? The available default statuses are: New, Open, Fixed, Closed, and Cancelled.
 - Add attachments. Screen captures and recorded sessions demonstrate problems much more effectively than words can. Alternatively, you can

attach screen captures that demonstrate that the defect was fixed. Click the **Attachments** tab to work with attachments. For details, see "Working with attachments" on page 25.

- Insert comments. Comments are very useful for communication between various users. Each comment gets a timestamp and an indication of who added the comment. Click the Comments tab and Add Comment. For details, see "Adding comments" on page 25.
- View history Do you need background information? Viewing the history of a defect can give you perspective over why a defect was opened, how many people have worked on the defect, and how a defect eventually became assigned to you. Click the History tab to view the history. For details, see "Viewing the history of an item" on page 29.
- Create traceability. Is the determination of whether a requirement is met contingent on the defect you are adding? If so, creating a relationship between the relevant requirements and this defect. This lets you see how well your project is meeting its requirements. Click Traceability and create the relationship by typing in the requirement's ID. For details on traceability, see "Traceability" on page 57.
- Click the Back to Grid when done.

See also

- "Working with defects by job function" on page 63
- "Defect overview" on page 66
- "Defining defects" on page 67
- "Using traceability links to defects" below

Using traceability links to defects



Traceability establishes links between one or more entities. Using these interdependencies, you can the manage the application lifecycle more effectively.

Examples

- A requirement is met if its linked defects are fixed. These are direct links.
- A requirement is met if its linked defects, and all defects linked to the requirements' defects, are fixed. These are indirect links.

You can add traceability links between a defect and:

- Other defects
- Requirements

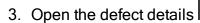
You can add links between requirements and defects from the Traceability tab of either module, Requirements or Defects.

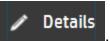
You can limit the information you see in the Traceability tab of a defect's details so you are looking only at relevant links. You can view links to other defects, links to requirements, or a summary of all links.

Add traceability from the Defects module

- 1. Select the Defects module.
- 2. Look for a relevant defect, such as one assigned to you, by setting up views and filters. For details, see "Displaying what you need" on page 19 and "Filtering" on page 20.

You can also open a defect by ID. For details, see "Locating an entity using Go to entity ID" on page 29.



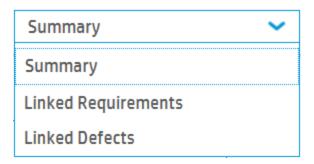


4. Click **Traceability**. Existing traceability links for the defects are displayed.

Tip: Click the ID of any of the existing linked entities to view its details.

5. In the upper right of the window, choose what you want to see: A summary of

all links, links to requirements, or links to defects.



Tip: Selecting **Linked Defects** lists the linked defects in a grid, and gives you additional options such as choosing the columns to display, filtering the grid, and removing traceability links. You can return to the Summary if you do not want to see the details in a grid.

- Click Add traceability, and choose either Link to Requirement or Link to Defect.
- 7. **Defects**: Enter the ID of the defect to link.

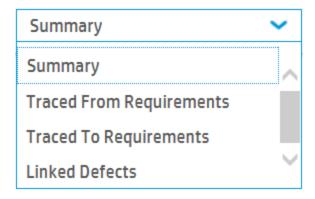
Requirements: Either enter the ID of the requirement or select it from the requirement tree.

8. Click OK and then Save.

Add traceability from the Requirements module

Adding traceability from the Requirements module is very similar to adding traceability from the Defects module.

- 1. In the Requirements module, locate the relevant requirement and display its details.
- Click Traceability.
- 3. In the upper right of the window, you can choose to list only linked defects.

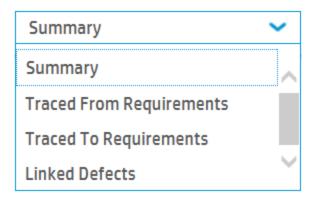


Tip: Selecting Linked Defects lists the linked defects in a grid, and gives you additional options such as choosing the columns to display, filtering the grid, and removing traceability links. You can return to the Summary if you do not want to see the details in a grid.

- 4. Click Add traceability, and choose Link to Defect.
- 5. Enter the ID of the defect to link.
- 6. Click OK.

Remove traceability

In the Traceability tab, select Linked Defects in the upper right of the window.
 The following example is from the Requirements module.



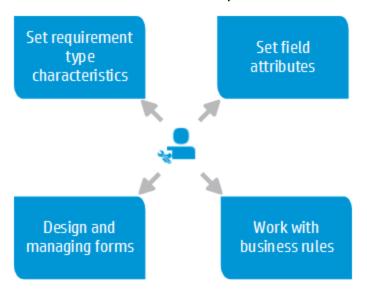
2. Select the defect in the grid whose link you want to remove, and click **Remove** Trace.

See also

- "Common actions" on page 23 for an overview of traceability
- "Traceability" on page 57 (for requirements)
- "Working with defects by job function" on page 63
- "Defining defects" on page 67
- "Updating defects" on page 69

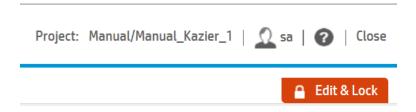
Chapter 5: Customizing the ALM Web Client

Administrators: As the ALM Web Client administrator, you can customize the end user's ALM Web Client experience.



Only one administrator can edit work in Customization at a time. However, other administrators can view existing settings.

When entering Customization, click **Edit & Lock** on the upper-right to make changes. Remember to **Unlock** when finished.



See also

• "Managing projects" on page 141

Setting requirement type characteristics

As the ALM Web Client administrator, you can customize requirement types on a project-by-project basis to meet the needs of your users.

- 1. Select o and then Customization at the upper right to enter customization.
- 2. Select the module to customize. In this case, Requirements.
- 3. Select Types.
- 4. Select the requirement type you want to change, and then:
 - To change a requirement type's icon, select a new icon from the Type Icon drop-down list.
 - To set the default type for the requirement type's children, select a requirement type from the Default Child Subtype drop-down list.

Example

If you set Functional as the default child subtype for the Group requirement type, when you create a requirement under a Group requirement, the child requirement will be of type Functional automatically.

■ To set a requirement type as a document root when working in Author mode, set Document Root to Y. For details on working in author mode, see "Editing requirements" on page 50.

You can set more than one requirement type as a document root.

Tip: If a child or a grandchild of a document root is also a document root, Author mode creates documents starting with the highest level document root.

Click Save.

See also

"Customizing the ALM Web Client" on page 75

Setting field attributes

As the ALM Web Client administrator, you can customize how fields are displayed and used in the ALM Web Client. For example, you can make certain fields visible in the ALM Web Client and modify a description displayed when the user makes the mouse hover over the field.

Set field attributes

You can change field attributes for requirements and defects.

- 1. Select o and then Customization at the upper right to enter customization.
- 2. Select the module to customize.
- 3. If necessary, click Edit & Lock to edit Customization.
- 4. Select Fields.

Default values are retrieved from the ALM server.

5. Select the field to customize.

Note: Some fields are read-only.

- 6. Edit the attributes for the field.
- 7. Click Save.
- 8. Click Unlock so others can modify values in Customization.

Restore field attributes

- 1. Select o and then Customization at the upper right to enter customization.
- 2. Select the module to customize.
- 3. If necessary, click Edit & Lock to edit Customization.
- 4. Select Fields.
- 5. Click **Restore** to discard changes made since the last save.
- 6. Click Unlock so others can modify values in Customization.

See also

"Customizing the ALM Web Client" on page 75

Designing and managing forms

As the administrator, you can design forms for use in each project. Forms enable end users to view and edit relevant information for entities using a Details layout that is meaningful to their organization.

Administrators can design and manage forms for the Requirements module and the Defects module.

To watch a movie on how to work with forms, refer to this section in the ALM Web Client Online Help.

Forms are defined per module within a project. For example, you can define forms for the Requirements module and different forms for the Defects module in the same project. Which form is used is controlled by the business rules you create. For details, see "Defining business rules" on page 92.

Tip: You can create forms in a staging area and, after testing, put them into production. For details, see "Staging rules and forms, and putting into production" on page 115

This section contains the following:

- "How administrators design forms" below
- "What are the parts of the form designer?" on the next page
- "Designing forms" on the next page
- "Deleting forms" on page 82
- "What are the parts of the form designer?" on the next page

How administrators design forms



CUSTOMIZATION: FORMS

The administrator is responsible for creating and maintaining various data input forms for different users in the organization and for the various circumstances users encounter during the life cycle of application design, development, and testing.





Consider designing forms in a project for staging purposes only. This way, users can continue working while you enhance existing forms.



With business rules, you can set up which form to use and when. For details, see Working with business rules.



Consider each type of user and his/her needs.

- Do all users need a quick, easy form for initially creating
- Does each user need access to different fields when editing an entity?

 $\label{eq:meetwith} \mbox{Meet with different types of users to understand the}$



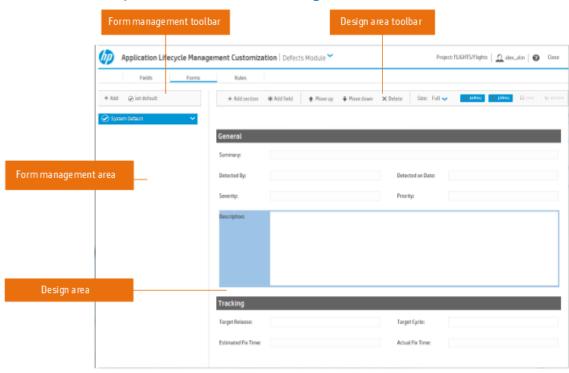
Export and the import your forms and rules for each module into the project used for production. For details, see Staging rules and forms, and putting into production.



An efficient way to make sure that your forms initially contain the same information is to duplicate the system default form. Then modify it as you wish.



If no special circumstances exist, the ALM Web Client uses the form you set as a default.



What are the parts of the form designer?

In the Form Designer, you can:

- View existing forms, add forms, delete forms, and set default forms in the Form management area.
- Add fields to the form, and group them into sections, in the Design area.
- Set display and editing properties for fields with the Design area toolbar.
- Reorder and/or remove fields in the form by selecting a field in the Design area and using the Design area toolbar.

Designing forms

- 1. Click on and then Customization at the upper right to enter customization.
- 2. Select the module for the form.
- 3. If necessary, click Edit & Lock to edit Customization.

- Click Forms.
- 5. In the Form management area:
 - Select an existing form.
 - Click Add to create a new form, or select the system default form, and then click
 Duplicate to make a copy of the system default form. You can then modify your copy.

Tip: Make sure to specify a unique name for the form when creating a new one.

6. In the Design area, add fields and sections using the Add field, and Add section buttons.

Adding fields:

- You can search for a field using the Type to search box.
- You can also associate a field with a section by choosing the section from a list or creating a new section.
- Fields are added after the currently selected field.
- When adding or editing fields, choose either Regular or Full in the Size drop-down. This setting determines if the field takes up an entire row or if the ALM Web Client can put it on a row with other fields.
- When finished adding fields, click Add field again to close the list.

Adding and deleting required fields:

- All required fields must be added to the form. For your convenience, the ALM Web Client required fields are automatically added to the form for you. You can move them on the form but you cannot delete them.
- 7. Modify the attributes for each field or section in the Design area toolbar. For example, you can set whether a field (other than memo) takes up half the space on the form or the full space by setting the Size to Regular or Full.

Tip: You can also use the Design area toolbar to:

- Reorder fields
- Delete fields
- Delete a section with or without its fields
- Navigate between fields
- 8. Click Unlock so others can modify values in Customization.

Deleting forms

- 1. Click to enter customization.
- 2. Select the module for the form.
- 3. If necessary, click Edit & Lock to edit Customization.
- 4. Click Forms.
- 5. In the Form management area, select the form to delete.
- 6. Click Delete.
- 7. Click Unlock so others can modify values in Customization.

Setting the default form

- 1. Click to enter customization.
- 2. Select the module for the form.
- 3. If necessary, click Edit & Lock to edit Customization.
- 4. Click Forms.
- 5. In the Form management area, select the form that should be the default.
- 6. Click Set default.

7. Click Unlock so others can modify values in Customization.

Want to see sample forms? See "Designing the needed forms" on page 122.

See also

- "Customizing the ALM Web Client" on page 75
- "Staging rules and forms, and putting into production" on page 115
- FAQ for "Importing and exporting rules and forms" on page 121

FAQs for forms

Here are some frequently-asked-questions about working with forms.

Tip: Do you have some questions and answers you'd like to add? Email us at sw-doc@hp.com.

Creating and designing

I can't edit my system default form.

The system default form is a read-only form. This way, you can always revert back to these default settings. You can duplicate the form (> Duplicate) to modify a new form based on these default settings.

I can't delete a field.

- If the field is a required field for the entity, you cannot delete it.
- If you are using the system default form, you cannot make any changes.
 The system default form is a read-only form. This way, you can always revert

modify a new form based on these default settings.

See also

"Designing and managing forms" on page 78

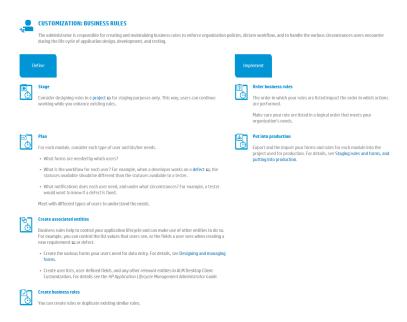
Working with business rules

Administrators: As the ALM Web Client administrator, you can customize the end user's ALM Web Client experience using business rules.

To watch a movie on the basics of how to work with business rules, refer to this section in the ALM Web Client Online Help.

To watch a movie on designing sets of business rules that work together to enforce company policy, refer to this section in the ALM Web Client Online Help.

How administrators design business rules



See also

- "Understanding business rules" on the next page
- "Business rule activation and performance" on page 89
- "Defining business rules" on page 92

- "Staging rules and forms, and putting into production" on page 115
- "FAQs for business rules" on page 117
- "Sample business rules" on page 121
- "Customizing the ALM Web Client" on page 75

Understanding business rules

Administrators. Business rules customize the ALM Web Client user interface and control actions users can perform. The rules enable administrators to implement and enforce organizational, departmental, and group policies on a project-by-project basis.

Note: The Business rule feature in the ALM Web Client is not the same as the set of workflow features in ALM Desktop Client. The business rule feature does not work in conjunction with the workflow features.

Business rules contain an action and usually a condition. You set the action that should occur when the defined condition is true.

Actions

- Most actions affect fields. These actions generally affect organizational policy.
 You can:
 - Make certain fields required or optional.
 - Make certain fields read-only or editable.
 - Change the values for field lookup lists—either to a different lookup list or a subset of a lookup list.
 - Set a default value for a field when creating or changing an entity.
 - Set a value for a field if the value of another field changes.
 - Send an email if an entity is created, changed, or deleted.
- Some actions affect forms, such as enabling users to choose different form layouts for adding and editing entities. These actions affect usability.

Conditions

Conditions, when met, cause the rule's action to be performed. Conditions can be based on a value of a field or on the group associated with a user.

For actions such as Set Value and Send Email, which have their own timing definitions, you don't have to specify a condition, but you can.

The ALM Web Client evaluates complex conditions only until the condition evaluates to either true or false, and then does not continue evaluating the rest of the complex condition.

- If the ALM Web Client evaluates an OR condition, and the first part of the condition evaluates to true, there is no need to continue evaluating the second part of the condition. The complex condition is met.
- If the ALM Web Client evaluates an AND condition, and the first part of the condition evaluates to false, there is no need to continue evaluating the second part of the condition. The complex condition is not met.

Tip: Conditions can evaluate to false if the ALM Web Client encounters a field in a rule definition that it cannot process because the field does not exist. Sometimes this is because a field was removed from the project.

However, there are situations where this is not an error, but part of the logic necessary to implement your organization's policy.

For example, different requirement types have different fields. When defining a condition, if you refer to a field that is not available for all requirement types, the condition will not be met if the requirement type being processed does not have that field. In this case, the best practice is to define the condition so that it quantifies the requirement type also. For an example, see the FAQ: ""I am defining a rule for different requirement types that have different fields. The condition I defined takes the requirement types into account, but still fails. Why?" on page 120."

How to work with rules

Plan

Think about the rules you need. What use case should your rules handle? What should the rules achieve?

- There may be a
 use case for
 which several
 rules are needed.
 For example, to
 set different
 lookup lists
 based on a field
 value, you need
 a rule for each
 lookup list.
- The order in which the rules appear in the rule list is also important. Later rules override the actions of earlier rules.

Define actions

Define *what* actions to perform in the Action tab.

In this tab, you can also:

- Add remarks that explain the purpose and logic behind the rule.
- You can also describe the use case, as determined during the Plan phase.
 Deactivate the rule. (Rules, by default, are activated.)

Define conditions

Define when actions are performed using conditions in the Condition tab.

- The condition can be based on a value of a field or on the group associated with a user.
- Don't define a condition if you want the Set Email and Set Value actions to be performed under all circumstances, meaning, unconditionally.

Rules containing any other action must have a condition. Save

Save the changes.

Once saved, expect the rules to run in real-time.

Examples of rules you can create

Switching Lookup lists

Depending on the requirement type, possible priorities for requirements might be different. You can create a rule that assigns different lookup lists based on

requirement type.

Condition: If the Requirement Type field is a specific value...

Action: Use a different lookup list for the requirement's possible Priority values.

Setting a subset of a Lookup list

Depending on the current product, certain releases are available. You can create a rule that makes only a subset of the current lookup list available, based on the product.

Condition: If the Product field is a specific value...

Action: Select the Release values that are relevant to that product.

Making fields required

When assigning a defect status to **Open**, it is implied that a developer is assigned to the defect. It would not be appropriate for the **Assigned to** field to be blank.

Condition: If the Status field is Open...

Action: The Assigned to field is required.

Setting default field values

When creating a requirement, make sure certain fields are set to default values.

Condition: Under all circumstances...

Action: Set the Covered Status field to Not Covered.

Sending an email

When reassigning a defect to another developer, make sure the developer gets notified.

Condition: A defect's Assigned to field is changed...

Action: Send an email to the new Assigned to...

Picking forms

When a tester creates a defect to report a bug, organizational policy dictates that the tester be able to view and edit the following fields: Summary, Description, Priority, and Severity.

Similarly, when a developer starts fixing a defect, the developer must be able to view and edit the following fields: Status, Target Cycle, and Target Release.

Define two rules:

Rule 1:Sets a form for developers.

Condition: If the current user belongs to the Developer group...

Action: The form for developers is used.

Rule 2:Sets a form for testers.

User's groups	include	Developer	
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Condition: If the current user belongs to the Tester group...

Action: The form for testers is used.

See also

- "Business rule activation and performance" below
- "Defining business rules" on page 92
- "Customizing the ALM Web Client" on page 75
- "Designing and managing forms" on page 78

Business rule activation and performance

This section describes how the ALM Web Client decides which rule actions to perform and when to perform them. It also discusses the significance of the order of the rules in the grid.

 "When are rule conditions evaluated and rule actions performed?" on the next page

- "Does the order my rules are listed in the grid affect how they run?" on the next page
- "My organization has many rules. Any tips on how to list them in the grid?" on the next page

When are rule conditions evaluated and rule actions performed?

Most rules are evaluated on an ongoing basis and their actions are performed when necessary. Other rules are evaluated after certain events occur.

The ALM Web Client evaluates rule conditions and performs rule actions in one of two ways:

- As users work, on an ongoing basis. The ALM Web Client checks to see if the
 conditions for activated rules are being met. When conditions are met, rule
 actions are performed. Most rules fall into this category (Read-only rules, Use
 form rules, and so on).
- If certain events occur. In addition to evaluating the conditions of activated rules to make sure the conditions are met, certain events must also occur for these rules' actions to be performed. These events include the creation of a new entity, deletion of an existing entity, or changing an existing entity.

Note: You do not have to specify a condition when defining the following types of rules. Their actions can be performed when the event occurs without any other constraints.

Examples include:

- Value-setting rules. These rules change the value of a field as an entity is created or changed. These rules' actions occur as soon as the operation is initiated.
- Email rules. These rules send an email if an entity is created, changed, or deleted. These rules' actions are performed when the creation, change, or deletion completes.

Note: Moving an entity in the tree is not considered a change to the entity.

Note: When creating rules that determine if a field is required or read-only, only one rule can be activated for a specific field. For example, you cannot activate two rules on the field **Priority**, one making the field **Priority** mandatory and the other making the field **Priority** optional, at the same time. Both rules can exist, but they cannot both be activated. For details, see "Is it possible for my rules to conflict logically, and if so, how is this handled?" on page 118

By default, rules are activated when they are defined.

Tip: To deactivate a rule after it is defined, select the rule in the Rule list and click OFF.

Does the order my rules are listed in the grid affect how they run?

If an entity meets the conditions of several rules, each of the rules' actions are performed on that entity in the order the rules are listed in the grid.

Example

A rule checks if a requirement is new (Edit mode=New) and if so, sets the input form to TheAddForm. This form lets users enter the basic information for a requirement, without getting into details that are generally only known at a later time.

The next rule in the list checks if a requirement is already in existence and being edited (Not (Edit mode=New)). In this case, the rule sets the input form to TheEditForm.

A third rule checks if the **Priority** for the requirement is **1-Critical** and if so, sets the form to **TheCriticalForm**. This form forces the specification of additional fields for explaining why this requirement is critical. This rule contradicts the setting of the second rule, because as it is the last to run, its result is the one that is retained—even if the requirement is not new.

My organization has many rules. Any tips on how to list them in the grid?

If so, you may find it helpful to organize your rule list according to how the ALM Web Client processes rules. This has no impact on when rule actions run, but it may help you see the big picture.

This order also most resembles the way the ALM Web Client processes the rules "behind the scenes."

- 1. First list the rules that occur after a certain event:
 - a. Rules that change field values as an entity is being created.
 - b. Rules that change field values when an entity is changed or deleted.
 - c. Rules that send emails.
- 2. List all other rules. These are the rules that are evaluated and performed on an ongoing basis.

Tip: You are likely to have many rules that set different lookup lists and sublists to cover all scenarios. It's easier to read if these are grouped together at the end.

See also

- "Understanding business rules" on page 85
- "Defining business rules" below
- "Customizing the ALM Web Client" on page 75
- "Designing and managing forms" on page 78

Defining business rules

The ALM Web Client administrator can create business rules on a project-byproject basis.

Tip: You can prepare business rules in a staging area, and then put the rules into production by importing them into your live project. For details, see "Staging rules and forms, and putting into production" on page 115.

- 1. Click on and then Customization to enter customization.
- 2. Select the module for the rule.
- 3. If necessary, click Edit & Lock to edit Customization.
- 4. Click Rules. Existing rules display in a grid.

Tip:

- Rules that are not defined correctly display with a and individual fields display with a red border.
- You can filter the rules you see in the grid. Using the text box at the top of the grid, enter text. Only rules whose Action, Condition, or Remark contain this text are listed in the grid. To clear the filter, erase the text in the text box.
- 5. Click Add Rule, or select a rule and click Duplicate Rule.
- 6. Set the business rule's action and the condition. See "Defining actions" on the next page and "Defining conditions" on page 99.

Tip: If you want the rule containing either a **Set Value** or a **Send Email** action to be performed under all circumstances, you do not need to set a condition. Define the action and proceed to the next step.

Rules are added to the Rule list. Added rules are appended to the end of the rule list. Duplicated rules are added after the selected rule.

Tip: You can search for rules in the grid. Type a string in the text box at the top of the grid. Rules whose action, condition, or remark does not contain the string are hidden.

- 7. By default, rules are activated. For details, see "Business rule activation and performance" on page 89.
- 8. Order the rules. Click Move Up or Move Down to reorder the rules in the Rule

list.

Tip: When run, the actions of the rules at the end of the list override the rules earlier in the list. For details, see "Is it possible for my rules to conflict logically, and if so, how is this handled?" on page 118.

- 9. Click Save Changes.
- 10. Click Unlock so others can modify values in Customization.

See also

- "Understanding business rules" on page 85
- "Business rule activation and performance" on page 89
- "Defining actions" below
- "Defining conditions" on page 99
- "Customizing the ALM Web Client" on page 75
- "Designing and managing forms" on page 78

Defining actions

You can define rules that:

Set the Details layout of the requirement or defect, using forms.

Tip: The forms must be defined in the ALM Web Client before creating the rules.

- Set a field to be required or optional
- Set a field to be read-only or editable
- Send an email
- Set a value, such as a default value

• Change a field's lookup list to a different list or a subset of a lookup list

Tip: The lookup list must be defined in the ALM Desktop Client before creating the rules.

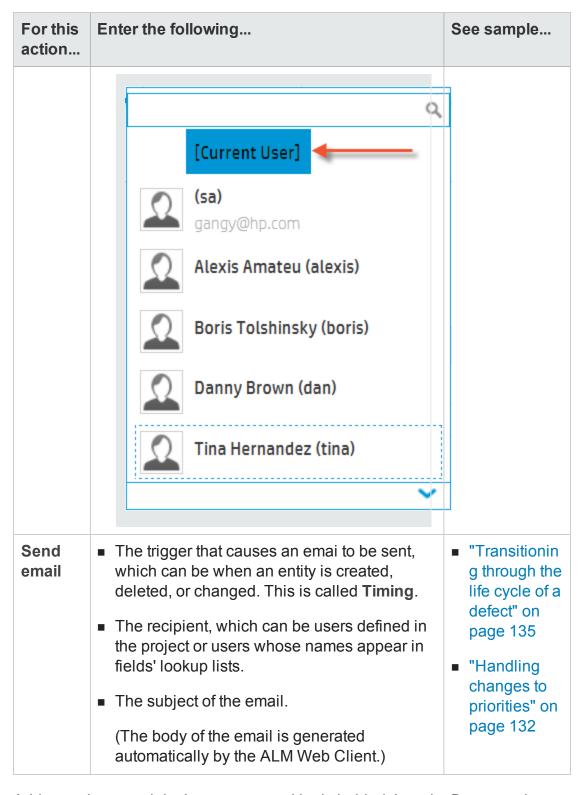
To define actions:

- 1. Click the Action tab.
- 2. Define the action you want the rule to perform.

For this action	Enter the following	See sample
Make require d	■ The field you want to make required.	"Setting up default forms and values" on page 122
Make optional	■ The field you want to make optional.	"Setting up default forms and values" on page 122
Make read- only	■ The field you want to make read-only.	"Setting up default forms and values" on page 122
Make editable	■ The field you want to make editable.	"Setting up default forms and values" on page 122

For this action	Enter the following	See sample
Use differen t lookup list	 The field whose list you want to change. The name of a pre-defined list you want to use. This list must be pre-defined in .ALM Desktop Client Customization. You can limit the options in the lookup list by selecting specific values from the lookup list. 	■ "Limiting status choices based on the user's project" on page 138
Use form	 A pre-defined form layout, created in Customization > Forms. 	 "Transitionin g through the life cycle of a defect" on page 135

For this action	Enter the following	See sample
Set field value	■ The trigger that causes a value to be set, which can be when an entity is created, or an entity field is changed. This is called Timing .	 "Setting up default forms and values" on page 122 "Handling changes to priorities" on page 132
	■ The field whose value you want to set.	
	■ The new value, or empty	
	When setting a date value, the [Date of change] option sets the date to the date the change was made.	
	Tip: When you select a field that lists users, you can select the special user [Current User] for the currently-logged in user:	



3. Add remarks to explain the purpose and logic behind the rule. Documenting

the rule is very important for overall management of business rules.

4. To set a condition for the rule, see "Defining conditions" below. If your rule contains a **Set Email** of a **Set Value** action, setting conditions is optional.

See also

- "Understanding business rules" on page 85
- "Defining business rules" on page 92
- "Customizing the ALM Web Client" on page 75
- "Designing and managing forms" on page 78

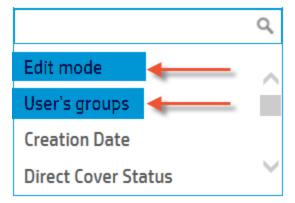
Defining conditions

- 1. Click the Condition tab.
- 2. Create the condition.

Note: Only one condition can be defined. The condition can be a complex condition.

a. In the **Field** box, choose a field on which to base the condition, or a special circumstance.

Tip: Start typing a field name in the corresponding box to search and choose from a list.



Special circumstances include:

 Edit Mode. The condition is based on whether the current entity existed already and is now being edited, or if the current entity is new.

To check if new: **Edit mode** = **New**

To check if existing: **Not(Edit** mode = New)

See samples:

- "Defining a rule to use the QuickAdd Requirements form" on page 127
- "Defining a rule to use the Business Analyst form" on page 127
- "Defining a rule to use the Project Manager form" on page 128
- User's Groups. The condition is based on whether the current user belongs to a specific user group, as defined in ALM Desktop Client Customization.

See samples:

 "Defining a rule to use the Business Analyst

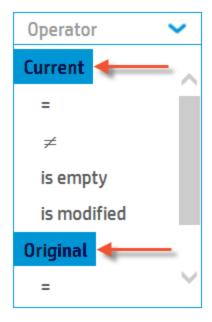
form" on page 127

- "Defining a rule to use the Project Manager form" on page 128
- "Limiting status choices based on the user's role" on page 136

Tip: You can base your condition on the values of fields from other modules, such as a **Target Release** or **Target Cycle** from the Releases module.

b. In the next box, choose an operator.

Depending on the field, different operators are available. For example, date fields display different operators from text fields.

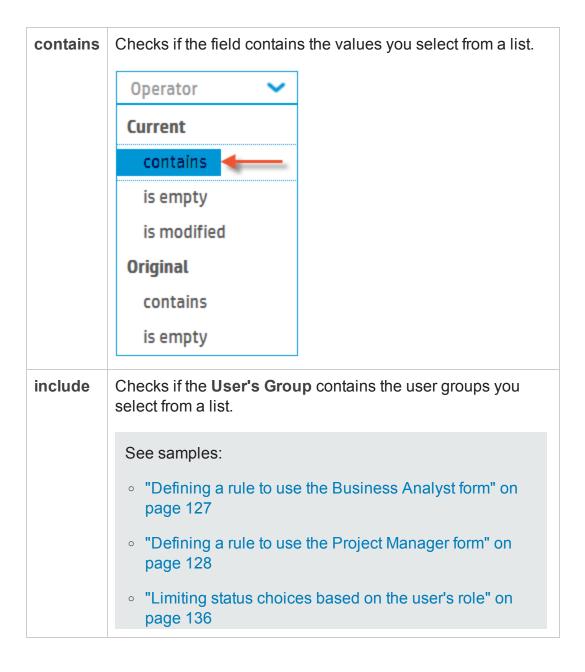


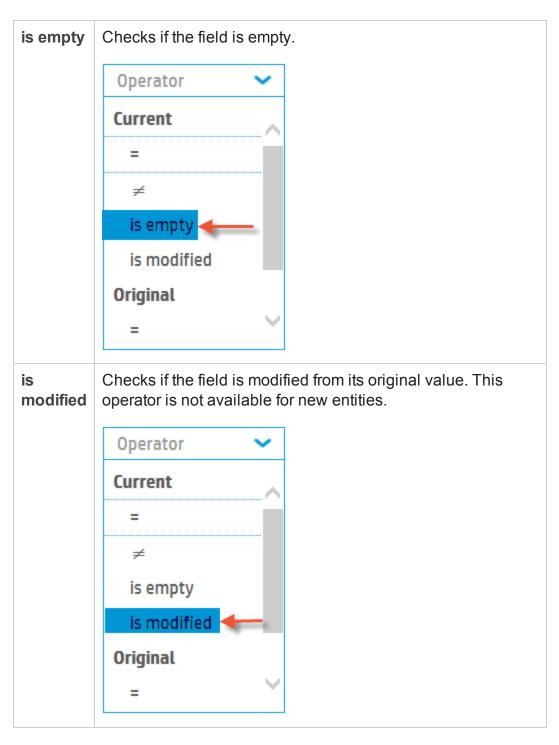
You can set conditions that assess the original value of a field (when the entity was first accessed) or the current value of a field (because you may have changed the field value since the entity was initially accessed).

- To base the condition on the original value, select an operator under the heading **Original** in the operator dropdown list.
- To base the condition on the current value, select an operator under the heading Current in the operator dropdown list.

See sample: "Alerting a developer if a defect gets an urgent priority" on page 135

In addition to typical operators (=, <, >, and so on), some fields support special operators, such as:



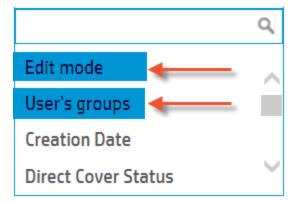


c. In the Value box, enter a value. You can choose the value from a list or enter a value.

Tip: Start typing a value in the corresponding box to search and choose from a list.

a. In the **Field** box, choose a field on which to base the condition, or a special circumstance.

Tip: Start typing a field name in the corresponding box to search and choose from a list.



Special circumstances include:

 Edit Mode. The condition is based on whether the current entity existed already and is now being edited, or if the current entity is new.

To check if new: **Edit mode** = **New**

To check if existing: **Not(Edit** mode = New)

See samples:

- "Defining a rule to use the QuickAdd Requirements form" on page 127
- "Defining a rule to use the Business Analyst form" on page 127
- "Defining a rule to use the Project Manager form" on page 128
- User's Groups. The condition is based on whether the current user belongs to a specific user group, as defined in ALM Desktop Client Customization.

See samples:

 "Defining a rule to use the Business Analyst

form" on page 127

- "Defining a rule to use the Project Manager form" on page 128
- "Limiting status choices based on the user's role" on page 136

Tip: You can base your condition on the values of fields from other modules, such as a Target Release or Target Cycle from the Releases module.

Add Rule

Action Condition

1 Target Release contains

Search for a Release

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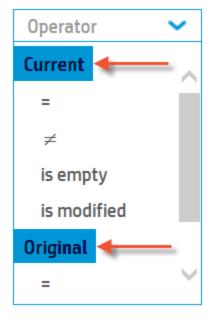
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OK Cancel Clear

b. In the next box, choose an operator.

Depending on the field, different operators are available. For example, date fields display different operators from text fields.

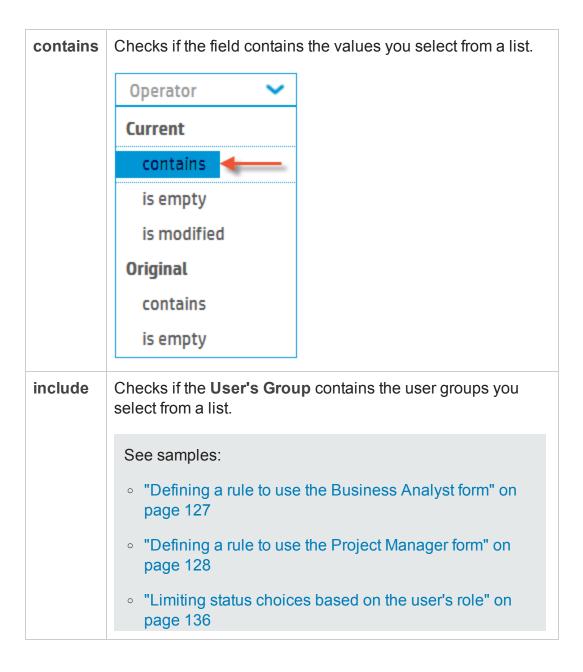


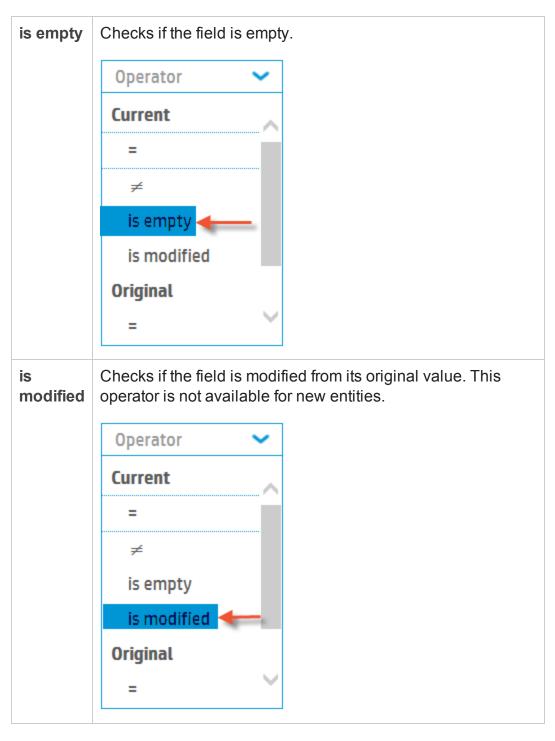
You can set conditions that assess the original value of a field (when the entity was first accessed) or the current value of a field (because you may have changed the field value since the entity was initially accessed).

- To base the condition on the original value, select an operator under the heading **Original** in the operator dropdown list.
- To base the condition on the current value, select an operator under the heading Current in the operator dropdown list.

See sample: "Setting the fix date of a defect" on page 139

In addition to typical operators (=, <, >, and so on), some fields support special operators, such as:



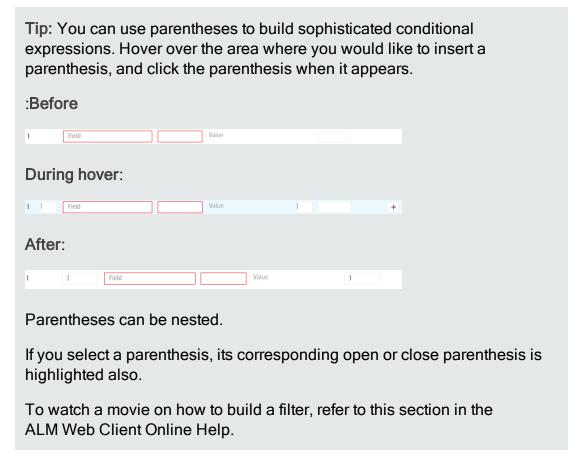


c. In the Value box, enter a value. You can choose the value from a list or enter a value.

Tip: Start typing a value in the corresponding box to search and choose from a list.

 If necessary, add additional expressions to the condition by choosing AND or OR in the Gate box and clicking .

If necessary, add additional expressions to the condition by choosing AND or OR in the Gate box and clicking $\stackrel{\bullet}{=}$.



As you build the condition, a textual representation of the condition is displayed in the **Description** box.

You cannot save the rule if there are errors. Errors include syntax errors, such as an unclosed set of parentheses, or context errors, such as a referenced user-defined field or form being deleted.

4. Click OK.

Examples

•				
Desired Result	Action	Field	Form / List / Timing	Condition
For every defect whose status is In Progress, Assigned to must be set. (It would not make sense for a defect to be unassigned yet already being worked on.)	Make required	Assigned to	NA	Status ≠ New
Developers may switch requirements from one Target Cycle to another, but do not have the authority to assign requirements to a different Target Release .	Make editable	Target Release	NA	Current User Groups Contains Developers

Desired Result	Action	Field	Form / List / Timing	Condition
For a specific product, the project manager has decided that only two levels of priority are necessary: High and Low. Other release have five levels of priority. Users should use this simpler set of Priority values instead of the default set.	Use different lookup list	Priority	Choose a list	Product = MyProduct
Only testers and project managers have the authority to officially close fixed defects. If a tester or project manager opens a defect that is fixed, the CloseDefect form opens. This form displays only the fields that are relevant to closing defects.	Use form	NA	CloseDefects	(Current User Groups contains Tester OR Current User Groups contains ProjectManager) AND Status = Fixed

Desired Result	Action	Field	Form / List / Timing	Condition
Developers can select certain statuses (Open , Fixed) while working a defect. Testers can select all the statuses. If a developer is working with a defect, he/she uses a subset of the status list.	Use different lookup list	Status	Choose a list, and then select the statuses Open and Fixed	Current User Groups contains Developers
When creating a new requirement, its default release should be set to the next release, version 6.50.	Set field value	Choose the target release, 6,50 , from the list.	Timing: On new entity	Action: Set "Target Release" value to "6.50" on New Entity Condition: Not(Edit mode - New)
Send an email to the Author user and the project manager, boris , if a user that is not a project manager deletes a requirement.	Send email	NA	Timing: On delete entity	Action: Send Email to Author, boris on Delete Entity Condition: Not(User's groups include Project Manager)

Tip: For complete sets of sample rules, see "Sample business rules" on page 121.

See also

- "Understanding business rules" on page 85
- "Defining business rules" on page 92
- "Customizing the ALM Web Client" on page 75
- "Designing and managing forms" on page 78

Staging rules and forms, and putting into production

As the administrator, the set of business rules you define for your project work together to provide complete and comprehensive enforcement of organizational, departmental, and group policies.

For this to work, you create rules that handle all possible use cases and order them logically in the business rules grid to get the outcome your organization requires. Also, you create any entities on which the rules depend, such as user input forms.

The best practice for designing rules and forms is to create the complete set of rules and forms in a project created for staging purposes only. In this project, you make sure that everything works together and correctly.

When ready, export the rules and forms from the staging project to a file, and then import the file into the production project.

What do I need to consider?

To make sure the rules remain valid while being put into production:

- All entities to which rules can refer must be the same in both the staging and production projects. This includes user lists, requirement types, user-defined fields, form names, and so on. We also recommend that the values and names of these entities match, for example, the actual user names.
- The export process creates files that you then use to import into production. Do not edit the exported files.
- Importing erases all existing rules and forms that are currently in production, overriding them with the more up-to-date rules and forms. Back up the production project before importing.

- When importing, you must:
 - a. First, import forms.
 - b. Then, import rules.

How do I put rules and forms into production?

- In ALM Desktop Client Site Administration, create a project for staging purposes. Make sure all its entities are the same as the entities in the production project For details on creating projects, see the HP Application Lifecycle Management Administrator Guide.
- In the staging project, in ALM Web Client Customization for each relevant module, create forms and rules that match the entities in the production project. Then make changes as necessary to the forms and rules. For details, see "Designing and managing forms" on page 78 and "Defining business rules" on page 92.
- 3. In the staging project, in ALM Web Client Customization for each relevant module:
 - a. In the Forms tab, click . Save the exported form file.
 - b. In the Rules tab, click . Save the exported rule file.
- 4. Back up the production project. For details, see the *HP Application Lifecycle Management Administrator Guide*.
- 5. In the production project, in ALM Web Client Customization for each relevant module:
 - a. In the Forms tab, click 🖹 . Navigate to, and select, the exported form file.
 - b. In the Rules tab, click . Navigate to, and select, the exported rule file.

Caution: Make sure to import the forms before you import the rules.

6. Check rules to see if any are invalid (indicated in red) and correct as necessary.

See also

- "Understanding business rules" on page 85
- "Defining actions" on page 94
- "Defining conditions" on page 99
- "Customizing the ALM Web Client" on page 75
- "Designing and managing forms" on page 78

FAQs for business rules

Here are some frequently-asked-questions about working with business rules.

Tip: Do you have some questions and answers you'd like to add? Email us at sw-doc@hp.com.

General

How come I cannot edit any fields in Customization?

Only one administrator can work in Customization for a project at a time. Click **Edit & Lock** a the upper right to see if you can edit the fields. If not, another user is probably working in Customization. While you are waiting, however, you can view all tabs and fields in Customization.

How come some fields don't appear in the drop-down lists?

If a field does not appear in a drop-down list, it is not supported. For example, when creating rules for the Requirements module, the ALM Web Client does not allow you to select the requirement parent.

Are business rules and workflow the same?

No. The Business rule feature in the ALM Web Client is not the same as the set of workflow features in ALM Desktop Client. The business rule feature does not work in conjunction with the workflow features.

ALM Desktop Client workflow is based on events and the timing of these events. Events trigger all workflow activities.

Certain business rules are activated based on specific events and their timing (such as Set field value and Send email rules. Most business rules, however, are

activated based on their condition, which is constantly being evaluated in the ALM Web Client. These rules' corresponding actions are performed as soon as the condition exists without any user intervention and without any specific event being triggered.

Which modules support business rules?

You can create rules for the following modules in the ALM Web Client:

- Requirement
- Defect

Are the business rules that I define for the entire site?

Business rules are defined on a project-by-project basis. You can have different sets of business rules for each project.

Rule validation

Does the ALM Web Client perform any validation on my rules?

Yes. The ALM Web Client checks for the following:

- Syntax. The ALM Web Client does not let you save a set of rules if even one of the rules is syntactically invalid. For example, if a parenthesis is missing, a red border is displayed around the lone parenthesis.
- Missing entities. If a rule refers to an entity that once existed but no longer does
 (for example, if a user-defined form was deleted since the rule was created), the
 rule is skipped and its action is not performed. Essentially, the rule is treated as
 if it is deactivated.

No errors are issued. However, you can check the ALM Server log files to see if any rules were skipped.

Note: It is possible for an entity, such as a form, to be deleted and then subsequently, a new form be created with the same name. This new form might have no similarity to the original form. In this case, the rule's action is performed without errors, yet with unexpected results.

Is it possible for my rules to conflict logically, and if so, how is this handled?

It is possible for the conditions of multiple rules in one project to be true at the same time. If these rules have conflicting actions, the ALM Web Client processes both of

them in the order they are specified in the rule list. Therefore, the later one in the list overrides the actions set by the earlier one.

Use the Move up and Move down buttons to order the rules.

Examples

Two rules can have overlapping conditions on the same field.

One rule's condition could be Closing Date > December 31st, 2014 and another rule's condition could be Closing Date < February 1st 2015. If the closing date is in the month of January, which rule's action is performed? The rule that is defined later in the rule list is the one whose action is performed.

- Two rules can have overlapping conditions on different fields.
 - A rule, SetFormForDev, sets the form for the Defects module to a form called DevForm if the user assigned to the defect belongs to the developer group. This form includes fields that are relevant to developers and hides fields that are relevant only to testers and project managers.
 - A rule, SetFormPlanning, sets the form for the Defects module to a form called DevTeamLeadForm if the Estimated Fix Time of the defect is greater than 1 week. The DevTeamLeadForm only displays fields that are related to planning and scheduling of defects for a particular release and cycle.
 - Because a developer team lead is likely to be in the developer group, both of these conditions can be true for one particular defect.
 - If the SetFormDev rule appears after the SetFormPlanning rule in the rule list, the DevTeamLead form will never be used. In this case, the SetFormDev rule must be before the SetFormPlanning in the list.

Condition processing

When evaluating a condition, what does the ALM Web Client do if it encounters a field on which a condition is based, yet the field has no value?

The ALM Web Client assumes a value depending on the field type. The rule is then evaluated and processed as usual.

Note: This assumption is for the purposes of evaluating the condition; the value is not actually assigned to the field.

Туре	Assumed Value
Integer	0
Date	1970-01-01
String	"" (empty string)
Lookup lists	"" (empty string)

I am defining a rule for different requirement types that have different fields. The condition I defined takes the requirement types into account, but still fails. Why?

Different requirement types can have different fields. When defining a condition, if you refer to a field that is not available for all requirement types, the condition will not be met if the requirement type being processed does not have that field. In this case, the best practice is to define the condition so that it quantifies the requirement type also.

Best practice:



Worst practice:



Rules whose action has its own timing (such as Set Email and Set Value rules) fail if the ALM Web Client encounters a field that does not exist in the current requirement type, yet you cannot specify the requirement type as part of a condition.

To handle these types of rules, create two rules instead of one. This way, there is no problem if the rule that doesn't apply to the current requirement type is not performed.

Best practice:



Worst practice:



Importing and exporting rules and forms

When I import my rules into production, I get errors or gibberish.

It is possible that the file created during export is corrupt or was edited manually outside of the import/export process. Re-export and try again.

See also

- "Working with business rules" on page 84
- "Sample business rules" below

Sample business rules

This section provides samples of business rules for various modules. You can use them as a basis for your own rules.

Each sample contains a "Show Me How" movie and step-by-step instructions for defining the rules.

Tip: Do you have some sample rules you'd like to share? Email us at sw-doc@hp.com.

Setting up default forms and values

This sample demonstrates how to create rules for setting up default values and forms.

- "Designing the needed forms" below
- "Defining rules to use forms" on page 124
- "Planning default values for creating a new requirement" on page 124
- "Defining rules to set default values" on page 125
- "Planning the read-only and required attributes for new requirements" on page 126
- "Defining rules to set read-only and required attributes" on page 126
- "Reviewing the rule list" on page 126

To watch a movie on how to work with sets of business rules, refer to this section in the ALM Web Client Online Help.

Designing the needed forms

When creating a requirement, let's assume that the user wants to enter the minimum number of fields necessary, and then return later to enter details. The **QuickAdd Requirements** form can be used.

When editing a requirement, the business analyst is interested in basic requirement and priority fields, while the project manager is interested in fields that help schedule the requirement, such as release and cycle. The **Business Analyst** and **Project Manager** forms can be used.

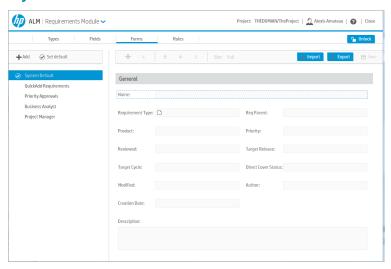
In all other cases, the **system default** form can be used. If not specified otherwise, this is the default. So there is no need to create a rule for this form.

Later, we will also use a form called **Priority Approvals** for handling urgent, special requirements. For a sample, see .

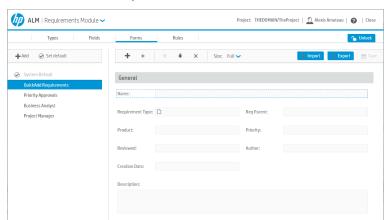
Make sure the forms are defined before creating rules. Let's take a look at the forms.

- "System Default form" below
- "QuickAdd Requirements form" below
- "Business Analyst form" on the next page
- "Project Manager form" on the next page

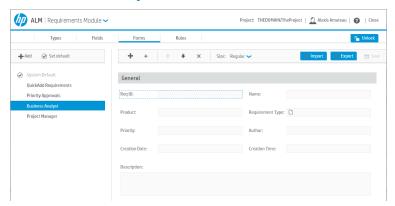
System Default form



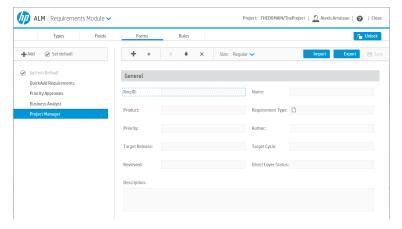
QuickAdd Requirements form



Business Analyst form



Project Manager form



Defining rules to use forms

Let's create the corresponding rules.

- Defining a rule to use the QuickAdd Requirements form
- Defining a rule to use the Business Analyst form
- Defining a rule to use the Project Manager form
- Ordering the rule list

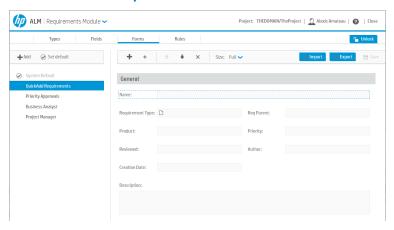
Planning default values for creating a new requirement

When creating a new requirement, it is helpful if default values are set for certain

fields, This saves the user time when entering data.

A logical place to start is to look at the fields in the QuickAdd Requirements form and determine the fields that can be pre-set.

QuickAdd Requirements form



Let's set default values as follows:

Priority	1-Low	Instead of a blank value, the priority is pre-set to 1- Low .
Reviewed	Not Reviewed	Instead of a blank value, the Reviewed field is pre-set to Not Reviewed .

Tip: Another way to set default values is to define and load preset values. For details on managing the preset values, see Manage preset value templates.

Defining rules to set default values

Let's create the corresponding rules.

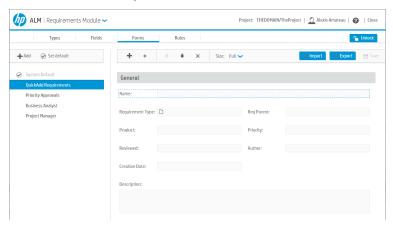
- Defining a rule to set the priority
- Defining a rule to set the Reviewed field

Planning the read-only and required attributes for new requirements

When creating a new requirement, you can establish company policies by making certain fields read-only and/or required, .

Using the QuickAdd Requirements form as a basis, let's set field attributes as follows.

QuickAdd Requirements form



Description		Required	
	Author	Read-only	

Defining rules to set read-only and required attributes

Let's create the corresponding rules.

- Defining a rule to make the description required
- Defining a rule to make the author read-only

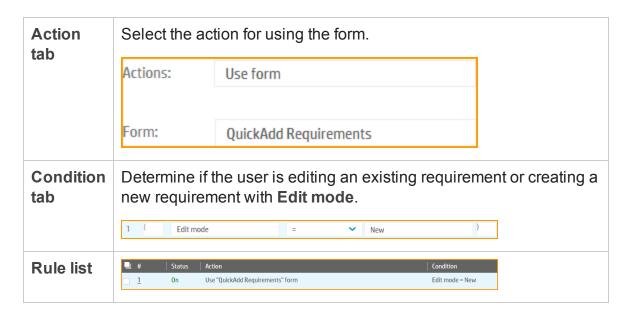
Reviewing the rule list

Take a look at the rules in the rule list. Does the order produce the desired results? If not, reorder the rules.

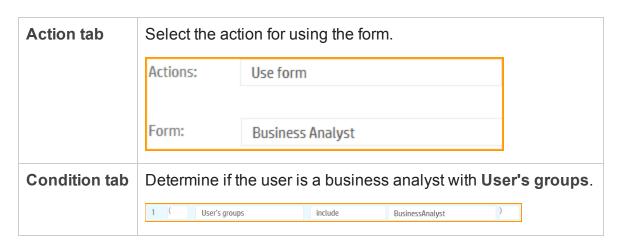
See also

- "Understanding business rules" on page 85
- "Defining business rules" on page 92
- "FAQs for business rules" on page 117

Defining a rule to use the QuickAdd Requirements form

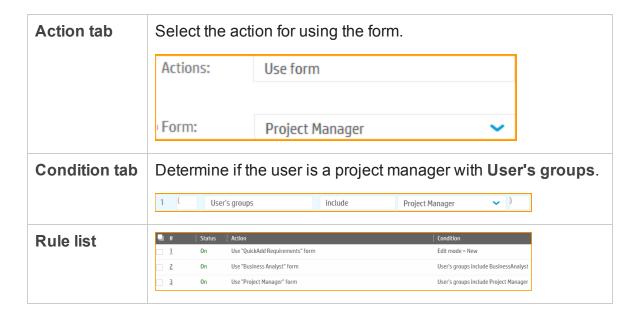


Defining a rule to use the Business Analyst form





Defining a rule to use the Project Manager form



Ordering the rule list

Now that the rules are defined, let's look at the order in which we defined them.



The order is important because rules that appear later in the list can override the actions of rules that appear before them in the list. Consider these possibilities:

- 1. What if the user is a business analyst that is creating a new requirement?
- 2. What if the user is a project manager editing an existing requirement?
- 3. What If the user is both a business analyst and a project manager?
- 4. What if a tester creates a requirement?
- 5. What if a developer edits an existing requirement?

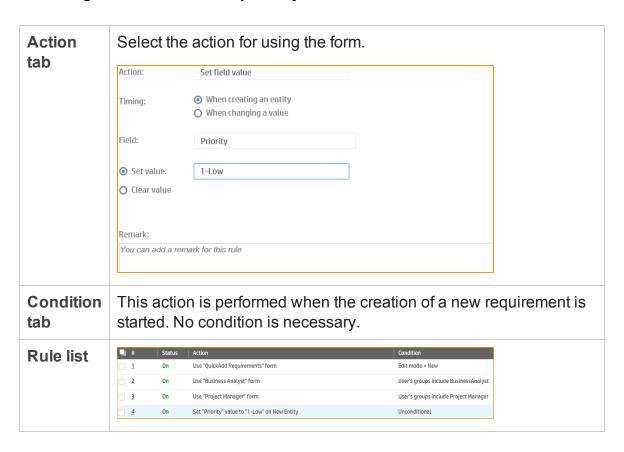
Answers

Based on the order of the rules in the rule list:

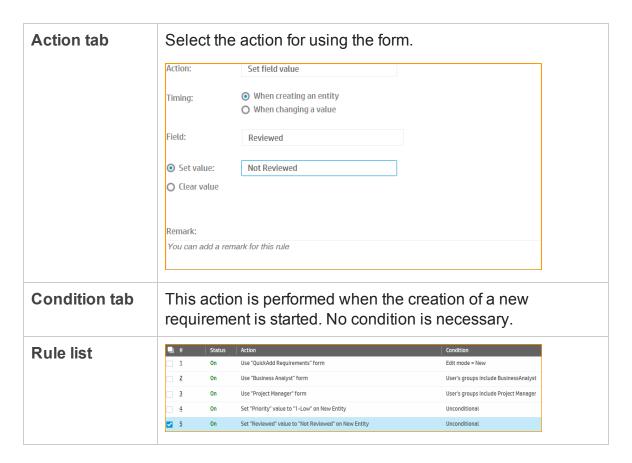
- When a business analyst creates a requirement, the Business Analyst form is used.
- 2. When a project manager edits an existing requirement, the **Project Manager** form is used.
- 3. If the user is both a business analyst and a project manager, the **Project Manager** form is used.
- 4. If a tester creates a requirement, the QuickAdd Requirements form is used.
- 5. If a developer edits an existing requirement, the System Default form is used.

You may want to reorder rules in the list to get the desired results.

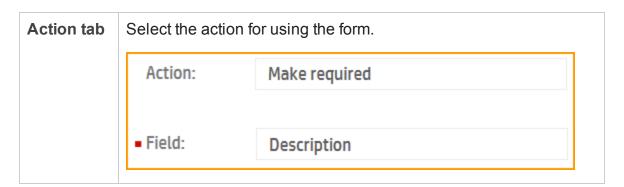
Defining a rule to set the priority

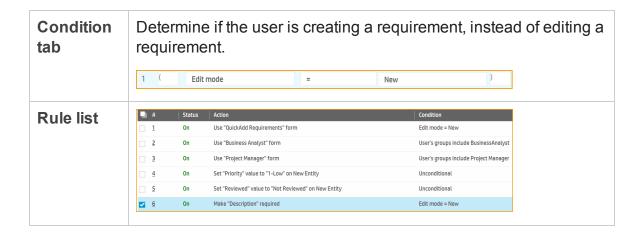


Defining a rule to set the Reviewed field

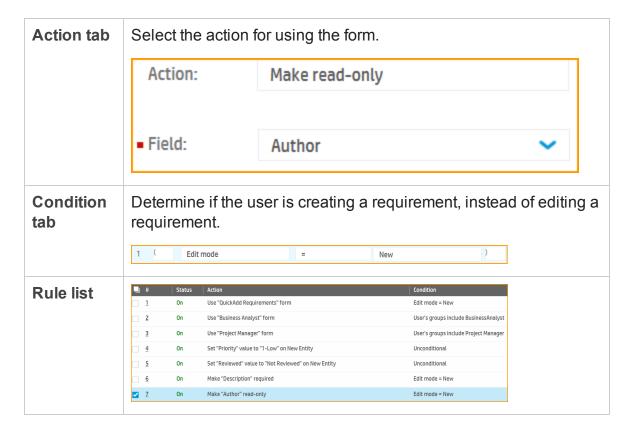


Defining a rule to make the description required





Defining a rule to make the author read-only



Handling changes to priorities

This sample demonstrates how to handle changes to priority for a defect.

- "Requiring additional information if a defect's priority is urgent" below
- "Alerting a developer if a defect gets an urgent priority" on the next page

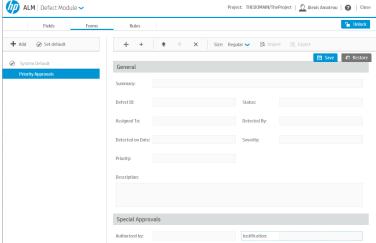
To watch a movie on how to work with sets of business rules, refer to this section in the ALM Web Client Online Help.

Requiring additional information if a defect's priority is urgent

People must use discretion before setting defects to urgent priority. If a user chooses urgent priority, an additional section should be added to the input form that forces the user to account for the urgency.

We can use the Priority Approvals form for this purpose. It contains two userdefined fields, Authorized by and Justification.

Priority Approvals form ALM Defect Module > Bulds | B



- Defining a rule to use the Priority Approvals form
- Making authorization fields required

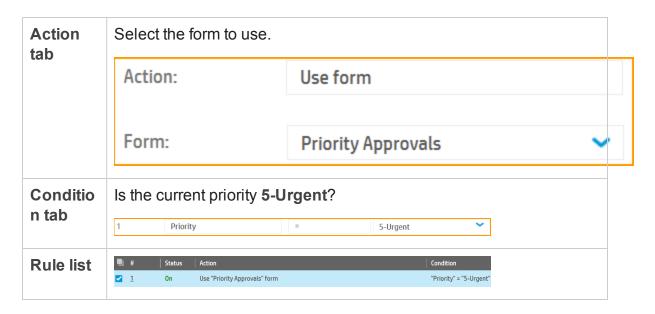
Alerting a developer if a defect gets an urgent priority

• Alerting a developer if a defect gets an urgent priority

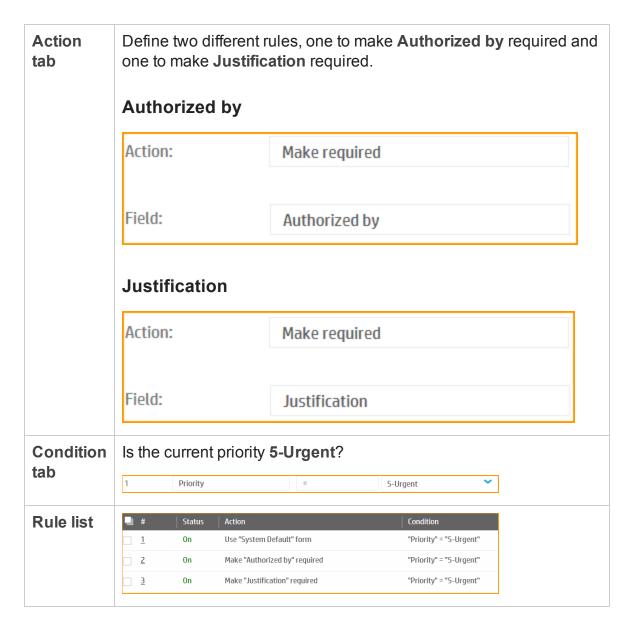
See also

- "Understanding business rules" on page 85
- "Defining business rules" on page 92
- "FAQs for business rules" on page 117

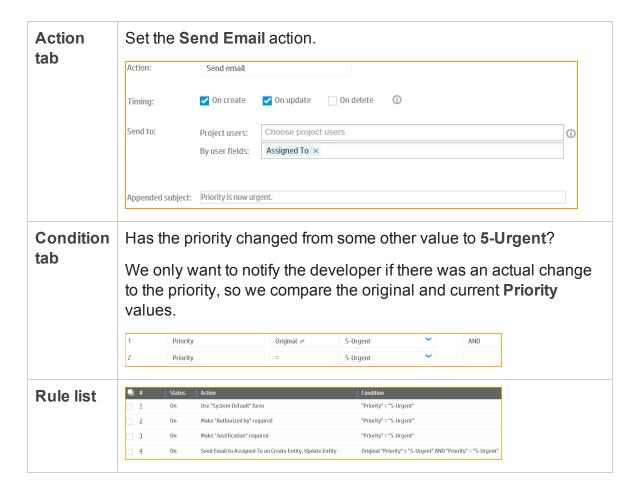
Defining a rule to use the Priority Approvals form



Making authorization fields required



Alerting a developer if a defect gets an urgent priority



Transitioning through the life cycle of a defect

This sample demonstrates how to manage the life cycle of a defect as it moves from status to status and from user to user.

- Limiting status choices based on the user's role
- "Limiting status choices based on the user's project" on page 138
- Setting the fix date of a defect

To watch a movie on how to work with sets of business rules, refer to this section in the ALM Web Client Online Help.

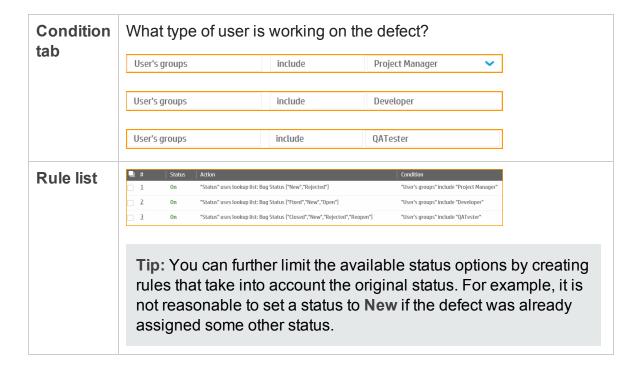
See also

- "Understanding business rules" on page 85
- "Defining business rules" on page 92
- "FAQs for business rules" on page 117

Limiting status choices based on the user's role

Depending on the user working on the defect, not all statuses should be available. For example, it is not reasonable for a tester to change the status of a defect to **Open** because testers do not implement corrections to the application under test.

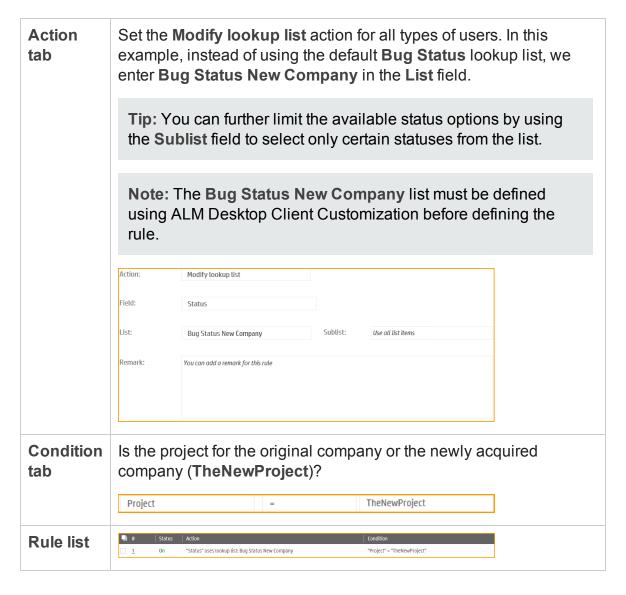
Set the Modify lookup list action for all types of users. Here are **Action** tab some examples. **Project Manager** Action: Modify lookup list Field: Status List: Sublist: New;Rejected **Bug Status** A project manager can open and reject defects. Remark: **Developer** Action: Modify lookup list Status List: Sublist: Fixed:New:Open **Bug Status** Remark: A developer can create a defect, indicate the defect is being worked on, and mark the defect fixed so that a tester can begin testing. **Tester** Action: Modify lookup list Field: Status List: Sublist: Closed;New;Rejected;Reopen **Bug Status** A tester can create, reject, reopen, and close defects. Remark:



Limiting status choices based on the user's project

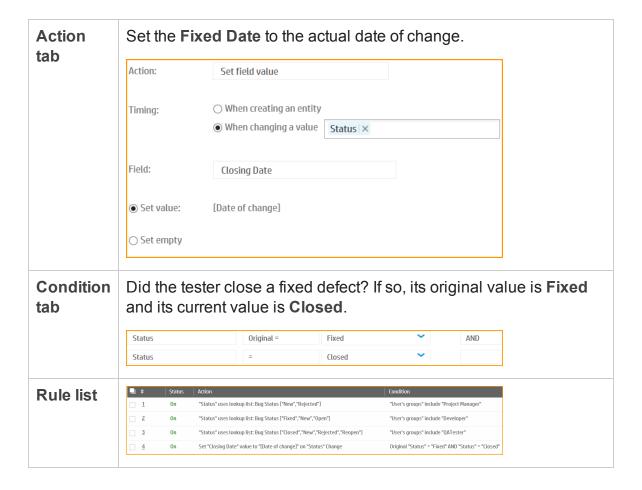
Depending on the user working on the defect, different sets of statuses should be available. For example, if an employee works on a product that was originally owned by a different company, and has now been incorporated into the current company, the statuses for that project's workflow might be different during the merger.

Example		
Current Company Defect Statuses	New Company Defect Statuses	
New	1-New	
Open	2-In Progress	
Fixed	3-Ready for Testing	
Open	4-In Testing	
Reopen	5-Complete	
Rejected	6-Cancelled	

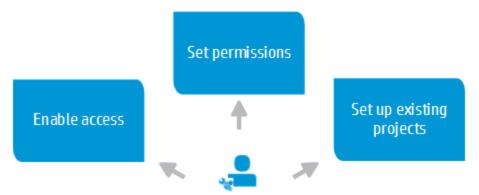


Setting the fix date of a defect

If the original status of a defect is Open, when this defect is fixed, set the Fixed Date.



Chapter 6: Managing projects



As the administrator, you must set up end-user access to the ALM Web Client.

Enabling access to the ALM Web Client

To enable end users to access the ALM Web Client, the ALM administrator must set up access in the ALM Desktop Client.

- In Site Administration, add the ALLOW_WEBUI_ACCESS site parameters and set its value to Y. For details, see the listing of optional ALM parameters under "Setting ALM Configuration Parameters" in the Site Administration part of the HP Application Lifecycle Management Administrator Guide.
- In Project Customization, make sure relevant groups have Allow Web UI Full
 Project Access or Allow Web UI View Project Access permissions. For details,
 see "Managing User Groups and Permissions" in the Project Customization part
 of the HP Application Lifecycle Management Administrator Guide.

Setting permissions for ALM Web Client users

ALM Web Client user permissions are based on the user groups defined in the ALM Desktop Client. Make sure that ALM Web Client users are assigned to the appropriate user groups in ALM Desktop Client Customization. For details, see the HP Application Lifecycle Management Administrator Guide.

Setting up existing projects for use in the ALM Web Client

Most ALM Web Client users have projects already in use in ALM Desktop Client. For best practices, see "Setting up existing ALM Desktop Client projects for use in the ALM Web Client" below.

See also

- "FAQs for managing projects" on the next page
- "Customizing the ALM Web Client" on page 75

Setting up existing ALM Desktop Client projects for use in the ALM Web Client

The ALM Web Client's flexible view and filter features let you view requirements in different ways without being locked into a physical requirement hierarchy. Creating a hierarchical tree in the ALM Web Client is unnecessary and clutters the view.

If your project's requirement tree already exists in the ALM Desktop Client, it is likely that a physically hierarchical requirement tree is already defined.

How to re-factor the requirements in the tree in the ALM Desktop Client for use in the ALM Web Client

- 1. Back up the project in Site Administration. For details, see the *HP Application Lifecycle Management Administrator Guide*.
- 2. Open the project in the ALM Desktop Client.
- 3. Take a look at the requirements tree and all its child requirements. Make sure that there are no inaccuracies. For example, If the tree has folders for releases and cycles, make sure that all release and cycle fields are correct based on their parent requirement locations in the tree. Make corrections as necessary.
- 4. Copy all sub-trees and requirements into the main root folder of the requirement tree.

- Make sure to rename requirements if there are requirements from different subtrees with the same name.
- 5. Delete all folders under the main root folder. The requirement tree is now one level.

How to work with requirements in both the ALM Desktop Client and the ALM Web Client

 After re-factoring the requirements, to simulate the use of folders and sub-trees in the ALM Desktop Client, use the sort and group by features of ALM. This is similar to using the view and filter features in the ALM Web Client.

How to configure what is displayed for requirements in Author mode

 For Author mode, you can display either the contents of the Description field or the Rich Text tab of the requirement in the area under requirement name. This is done in ALM Desktop Client Site Administration with the REQUIREMENT_ AUTHOR_USE_RICHTEXT parameter. For details, see the HP Application Lifecycle Management Administrator Guide.

See also

- "Managing projects" on page 141
- "FAQs for managing projects" below
- "Displaying what you need" on page 19

FAQs for managing projects

Administrators: Here are some frequently-asked-questions for administrators about managing projects.

Tip: Do you have some tips you'd like to add? Email us at sw-doc@hp.com.

Logging in and accessing the ALM Web Client

Who should I let access the ALM Web Client and its modules?

Limit access to suitable candidates as described in the "The ALM Web Client Overview" on page 7.

Access to individual modules is based on the permissions of the group to which the user belongs. Setting permissions are described in the *HP Application Lifecycle Management Administrator Guide*.

I would like my project users to get familiar with the ALM Web Client. However, until workflow rules can be implemented, I prefer we enter data using the ALM Desktop Client. How can I enforce this?

You can let users try the ALM Web Client on a read-only basis. This is useful for familiarizing users with the ALM Web Client without impacting actual data. See the Allow Web Client Full Project Access and Allow Web Client View Project Access group permissions in the Customization part of the HP Application Lifecycle Management Administrator Guide.

My computer crashed and ALM Web Client Customization thinks I'm already logged in. How can I get back into Customization?

Only one administrator is able to log into ALM Web Client Customization at a time,

If, for some reason, your computer crashed and the ALM Web Client thinks you are still logged in, open Customization in another browser. When prompted, override the existing lock.

Can I open several sessions of the ALM Web Client, logging in as different users?

You can open several sessions of the ALM Web Client by opening additional browser windows. (You cannot open multiple sessions using different tabs in the same browser window.) Each session in a browser window consumes a different license.

Can I open several sessions of the ALM Web Client, logging in as the same user?

You can open several ALM sessions at the same time, consuming one license overall:

- The ALM Web Client in a browser window
- The ALM Desktop Client in a different browser window
- ALM on a mobile device

In this case, only one license is consumed, not three.

Why can't I log into ALM Web Client Customization as a different user in the same browser window as another user? I keep entering ALM Web Client Customization without an opportunity to log in as a different user.

You actually can! Depending on your browser, there are ways that you can open a separate browser session (not a tab within the same browser) that does enable you to log in to ALM Web Client Customization as a different user connecting to the same ALM.

- Internet Explorer: Use InPrivate browsing.
- Chrome: Use Incognito mode.
- Firefox: Use Private browsing.

The same issue and solution applies to accessing the ALM Web Client also.

Setting up the ALM Web Client

My requirements tree in the ALM Desktop Client is organized into folders. But the ALM Web Client's flexible view and filter features let me view my requirements as I wish without being locked into a physical requirement hierarchy. What's the best way to organize my requirements?

When using the ALM Web Client, it is best to use views and filters to organize requirements. This allows for a more flexible display, with less clutter. For details on how to set up requirements for use in the ALM Web Client, see "Setting up existing ALM Desktop Client projects for use in the ALM Web Client" on page 142.

Communicating with customer support

Preparing log files for support

If you encounter a problem using the ALM Web Client, you can use your browser's Tools Console to send customer support any warnings, errors, or messages that occur. For example, in Internet Explorer, press F12 and select the Console tab to see the log messages.

See also

• "Managing projects" on page 141

User Guide

Send Documentation Feedback

If you have comments about this document, you can contact the documentation team by email. If an email client is configured on this system, click the link above and an email window opens with the following information in the subject line:

Feedback on User Guide (ALM Web Client 12.01)

Just add your feedback to the email and click send.

If no email client is available, copy the information above to a new message in a web mail client, and send your feedback to SW-Doc@hp.com.

We appreciate your feedback!



